

# American Cinematographer

SEPTEMBER 1998

## WITHOUT LIMITS

CONRAD HALL ANSWERS  
CALEB DESCHANEL'S QUERIES

## LOVE IS THE DEVIL

DECONSTRUCTS FRANCIS BACON

PLUS:

## TOUCH OF EVIL

TRENDS IN DIGITAL POST





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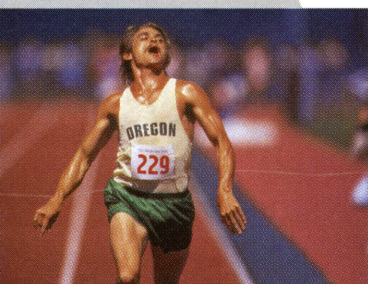


# American Cinematographer

The International Journal of Film & Digital Production Techniques

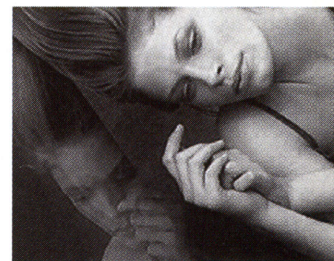
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**On Our Cover:**  
 University of Oregon  
 track star Steve  
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 Crudup) breaks the tape  
 in *Without Limits*, direct-  
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 photographed by Conrad  
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 of Warner Bros.)

**Contributing Authors:**  
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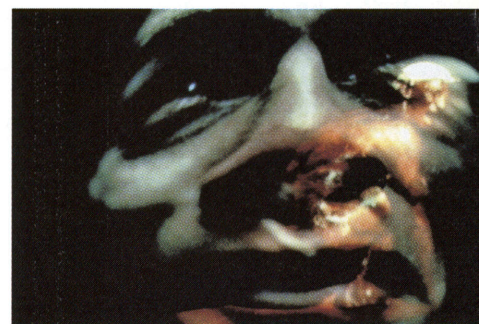
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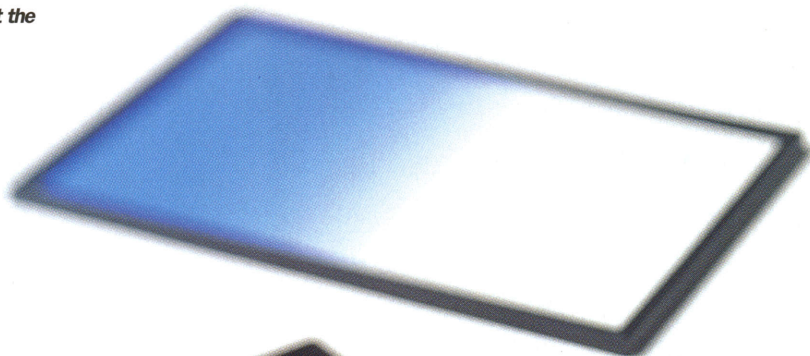
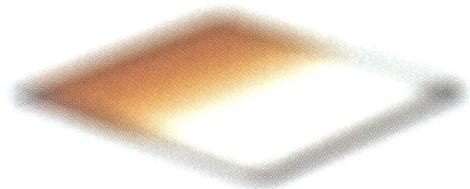
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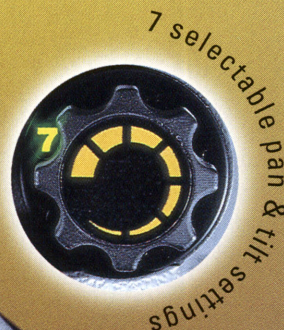
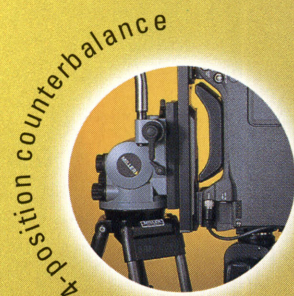
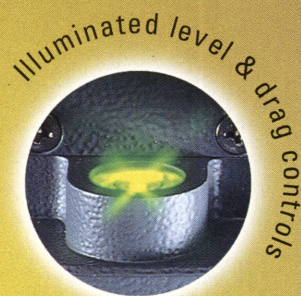
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It is fully submersible up to 6.5 feet, has access to internal follow focus, and is equipped with viewing ports to see camera and lens functions. Clairmont can also provide you with rechargeable NiCad batteries that fit within the housing and eliminate the need for an external power source and cables. Ask about Clairmont's special on-board video recorder that enables the Scubacam to be operated totally untethered.

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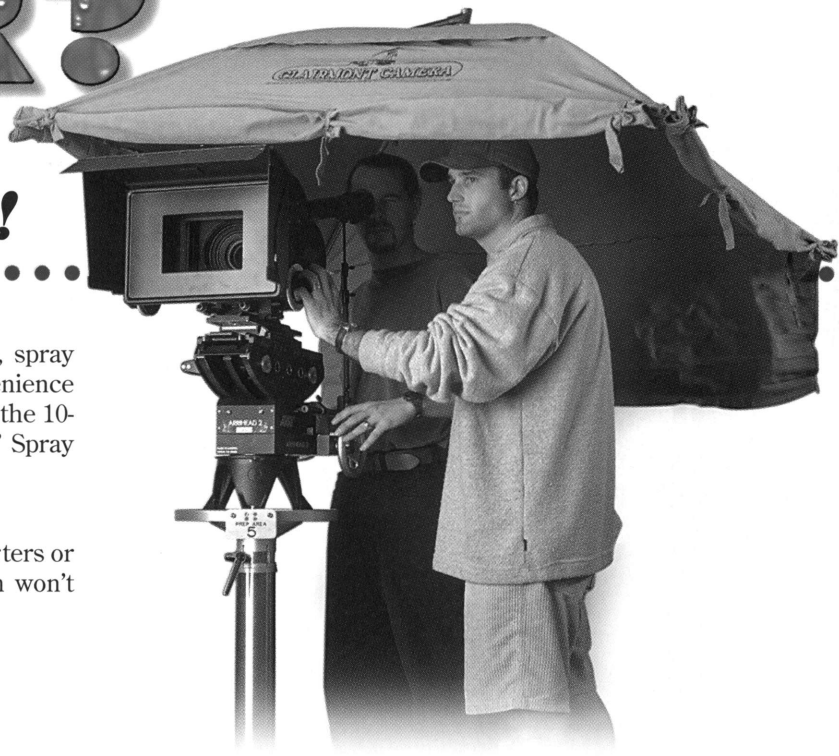


### **Underwater Video Monitors**

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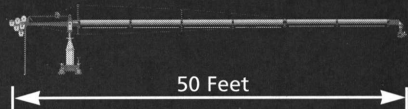
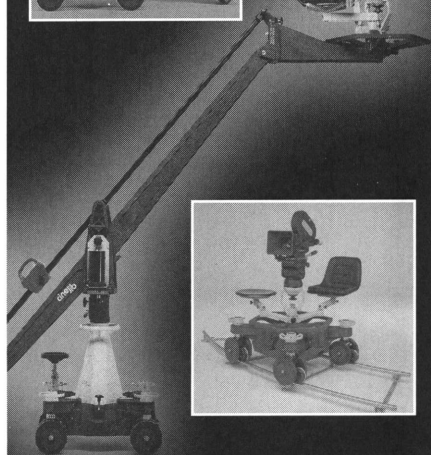
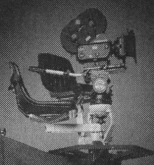
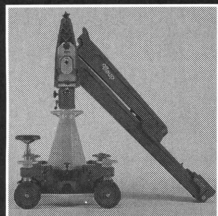
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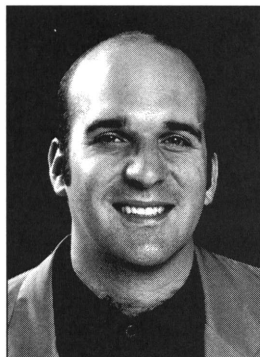


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# Editor's Note



The makers of sports-themed movies have always confronted a peculiar conundrum, in that it can be difficult to create more drama onscreen than an true-life event can generate. It was exciting to watch Sylvester Stallone's Rocky Balboa knock out Apollo Creed to win the heavyweight title, but certainly not as shocking as the sight of journeyman fighter Buster Douglas sending the previously unbeaten (and seemingly indestructible) Mike Tyson to the canvas in Tokyo. Likewise, Robert Redford's memorable home run in *The Natural* (stylishly photographed by Caleb Deschanel, ASC) was mirrored in the real world by the even more thrilling World Series heroics of a

hobbled Kirk Gibson, whose improbable four-bagger propelled the Los Angeles Dodgers to victory over the Oakland A's in 1988.

While filming *Without Limits*, writer/director Robert Towne and cinematographer Conrad Hall, ASC faced an even greater challenge: presenting a sports story based upon real events whose outcome was already a matter of historical record. The legend of Steve Prefontaine, a flashy and record-breaking University of Oregon runner of no small renown, is well-known to fans of track and field; Towne and Hall therefore had to generate suspense through purely cinematic means, focusing on the nature of the sport itself and the emotions of its participants. The filmmakers pulled this off with considerable flair, taking viewers right onto the track. To elicit Hall's thoughts on the production, we enlisted a "cub reporter" with impeccable credentials: the aforementioned Mr. Deschanel. Their insightful conversation begins on page 34.

*Love is the Devil* (page 46) mines very different terrain: the life and work of British painter Francis Bacon, whose bad-boy lifestyle added a fascinating dimension to his disturbing works of art. Director John Maybury and cinematographer John Mathieson have taken an admirably experimental approach to their subject, capturing both the raw power of Bacon's paintings and the wormy details of his personal peccadilloes.

Cinematic experimentation also bore fruit in recent commercial work done by two especially creative tandems: director/still photographer Sheila Metzner and cinematographer Curtis Clark, ASC (page 56), whose jazzy improvisations added luster to a recent Ralph Lauren ad campaign, and the married duo of Paula Walker and Rolf Kestermann (page 62), whose seductive and compelling images have graced television screens across the globe.

Of course, the risk-taker by which all other filmmakers are judged is still Orson Welles, who proved with *Touch of Evil* that deft direction and stylish photography (by Russell Metty, ASC) could turn even a pulpy script into poetry. Beginning on page 88, historical guru George Turner revisits this recently re-released noir classic, which has been restored to Welles's original specifications.

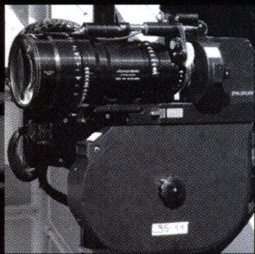
This issue of *AC* also presents the latest innovations from the realm of post-production, where video techniques ("Crossing Over in Post," page 68) and computer-aided ingenuity ("Thinking Different," page 78) have marked out a path for the future. As these articles indicate — and film history has proven — technology is at its best when it's driven by thoughtful purpose.

Sincerely,

Stephen Pizzello, Executive Editor  
e-mail: [stephen\\_pizzello@cinematographer.com](mailto:stephen_pizzello@cinematographer.com)



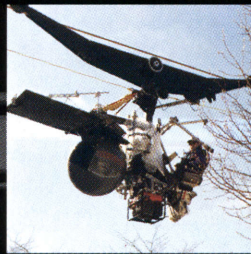
# *Visualize It We'll Shoot It*



Specialized lens applications including Panavision, Frazier and 11:1 (above)



Large format filming-IMAX; "Everest"  
"Africa's Elephant Kingdom"



Creative opening sequence from a  
Cablecam in "Hard Rain"



Enloura crane and boat  
mount on "Amistad"

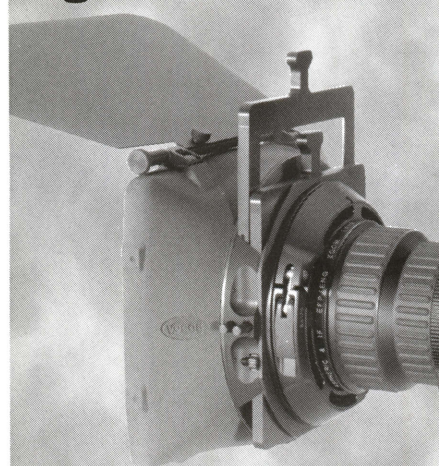


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# The Post Process

## ITS '98: Grappling with DTV

by Debra Kaufman

From July 8-12, the International Teleproduction Society welcomed approximately 1,350 postproduction executives and chief engineers to the Regal Biltmore Hotel in Los Angeles, where the group discussed an issue paramount in everyone's mind: how postproduction facilities can — or should — re-tool for digital television.

The amount of confusion and fear surrounding this issue cannot be overstated. Post facilities, especially those in markets with the first HD broadcasters, are facing an unenviable task: they must re-outfit their facilities to postproduce HD programming, despite the fact that only a very small number of HD tools exist; they're in the dark as to which standard(s) they will be expected to deliver in; and they don't have the means to postproduce for multiple standards. The capper is the immense cost associated with recapitalizing a facility on a deadline, with no certainty that the market will bear an increase in post prices to help make up for the outlay.

These are tough times, generally speaking, for postproduction facilities, and at least one owner has already thrown in the towel. Just days before ITS convened, C. Park Seward (who moderated the ITS panel "CEO to CEO") announced that he was closing the Baton Rouge branch of his Video Park full-service production/post house. Seward has put his New Orleans branch up for sale due to dwindling commercial business and, not insignificantly, his lack of desire to "go through another round of heavy financing" for DTV.

Much of the talk at ITS centered on DTV issues, from technology seminars to panels on equipment financing, commercials in the new digital era, the post facility in the year 2006, branding a

facility for success, format wars, and the cost of implementing DTV.

What did attendees hear? Much of the talk at ITS was a rehash of the history and politics behind HDTV and the different HD standards adopted by different broadcasters. Merits of the distinct standards were debated, with engineering guru Mark Schubin noting the key role that display plays: for a native 1080 interlaced display, 1080 looks better, and for a native 720 progressive display, 720 looks better.

Meanwhile, a few hardy post pioneers have opened HD suites (the subject of a future column in this space), and they gathered at one ITS panel to discuss their experiences. Terry Brown, chief engineer of Laser Pacific, Paul Chapman, vice-president of video engineering at Fotokem, and Andy Delle, v.p. of engineering at The Post Group — joined by Steve Russell from Philips and Peter Lude from Sony — described how the motivation for building their facilities' respective HD suites was customer-driven and quite tricky to implement. "The synergy between engineering and marketing is crucial for building the HD facility," declared Brown. "You can't write out a list of parts and go to Pep Boys. Engineers have to be more creative."

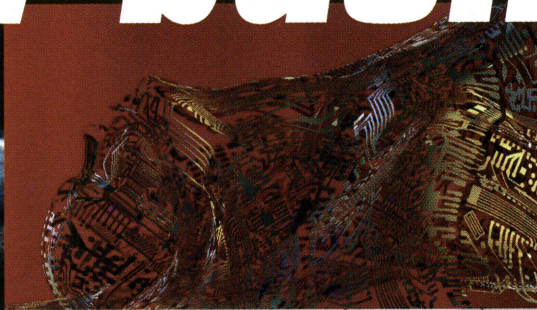
Everyone on the panel agreed that an HD retooling may not be immediately necessary for facilities which do not have customer demand for DTV postproduction services. "Doing nothing is a viable alternative," noted Sony's Lude. Those are strong words from the representative of the two manufacturers that have added important pieces to the HD post puzzle (including, among other gear, the Philips Spirit DataCine and Sony's HDCAM HDW-700 camcorder).

Continues on p. 14 ➤



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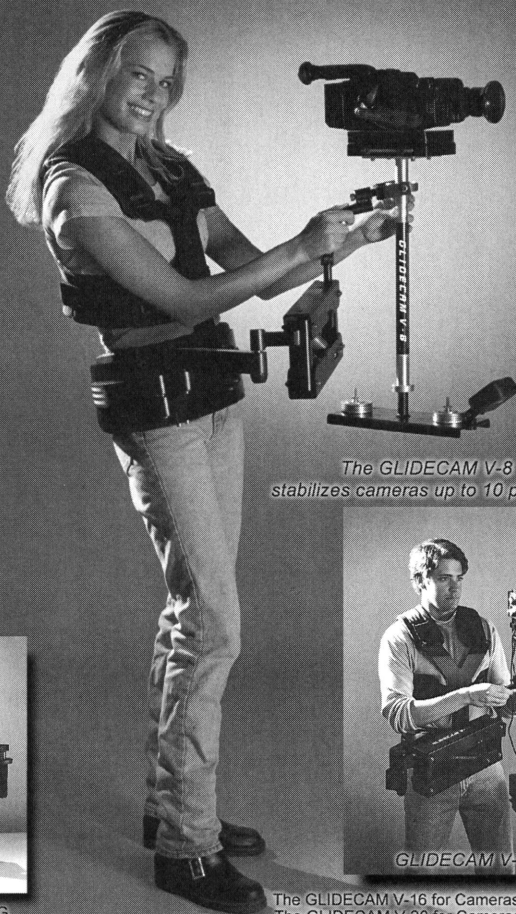
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What did ITS attendees see? Not much new in the way of real HD gear that's available today. Sony, which intends to ship an HD telecine in February, debuted its HDS-7100, a cost-effective HD digital mix/effects production switcher aimed at telecine transfers, small postproduction houses or small mobile facilities. JVC showed their 1080I HD camera, the KH100-U, which can record to the SRW-5 stand-alone analog HD recorder or any other manufacturer's HD deck. Cinema Products demonstrated their new TeleScanner, which offers pin-registered film transfers, co-developed with Sony's High-Definition Center (which has ordered three them).

Meanwhile, Silicon Graphics discussed its plans for the HD XIO video board, which will provide an interface between XIO-equipped SGI workstations and servers and HD equipment supporting ATSC HDTV formats. Expected to ship pre-NAB in 1999, this announcement is small solace for those required to input/output HD material today. For those in need of an I/O fix today, Interactive Effects and Viewgraphics Inc. showcased two different HD I/O solutions for SGI workstations.

What was ITS about this year? "Mostly talk and no walk," says a highly placed executive of a leading manufacturer who preferred to remain anonymous.

What does ITS need to do? That same executive pointed out that the collective muscle that ITS represents is mighty — and that ITS members should unite to "stop the madness" by educating production studios on the impact of DTV on the post house and urging them to slow down their production plans.

This same theme was echoed by several ITS speakers and attendees who urged the ITS membership not to let the networks dictate what they should do. Rather, the postproduction facilities could and should decide on a universal highest standard and let the networks broadcast whatever format and standard they want — thus ending the dilemma of the multi-standard post process, and opening the door to increased manufacturer enthusiasm for the production of single-standard HD post equipment. ■



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**Hmm...**

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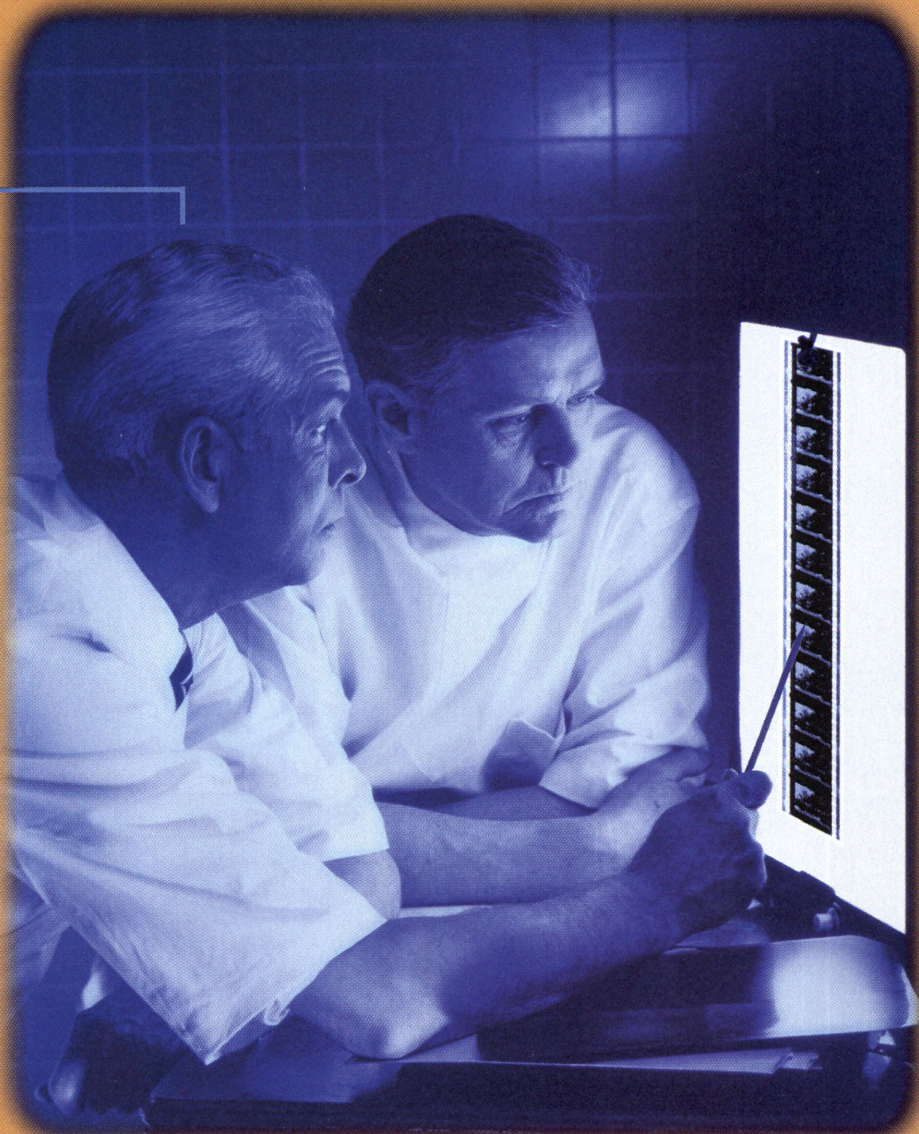
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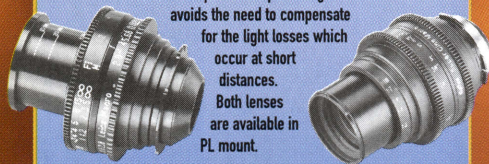


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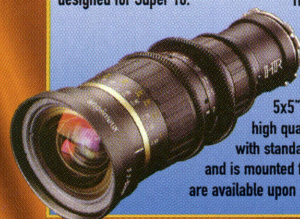


Incorporating excellent optics, there are now x2 extenders to fit Arri PL/Bayonet and Aaton mounts. Suitable for all Super 16 and standard 16 lenses as well as Canon, Angenieux and RTH lenses.

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## GRIPS

### ■ Jimmy Jib

The latest, triangular section Jimmy Jib is available to buy or rent from Optex. Designed for quick set up with just one tool, the Jimmy Jib is modular in design allowing you to start small and expand later. Features a super-smooth pan & tilt head and internal routing for electronic cables allowing full, multiple 360's to be made without the need for a slip ring.

### ■ Quadrajib

Quadrajibs are compact, lightweight, portable and extremely cost-effective camera extensions that attach to 75-100mm bowl tripods fitted with a heavy-duty spreader. The Quadrajib 36 can handle payloads of up to 40lbs (18kg) and has a working length of 36" (90cm). The Quadrajib 2654 can handle payloads of up to 42lbs (19kg) and its working length extends from 26" (65cm) to 54" (137cm).



### ■ Magic Dolly



The Magic Dolly from Key West is a lightweight, foldable dolly that is easy to transport. Used in conjunction with the inflatable Cobra Track, the Magic Dolly is capable of producing extremely sophisticated horizontal tracking moves and the Cobra Track has no joints to create unwanted bumps or clicks making it as smooth on location as it is in the studio.

### ■ Car Mount

The CHE Car Mount incorporates a short beam and a camera beam to fit onto any vehicle door.

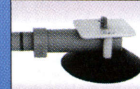
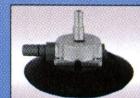


Adjustable in both the vertical and horizontal planes and incorporating fully adjustable mountings, legs and clamps, a full range of camera positions is possible without damage to vehicle panels and paintwork.

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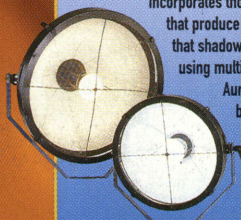


## aurasoft

### ■ Aurasoft 600/800

Based on a unique reflector surface design, Aurasoft from Optex incorporates thousands of tiny spheroidal convex mirrors that produce a controllable light so soft and natural that shadows are barely perceptible, even when using multiple units.

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## Optex

### ■ Cinemeter II

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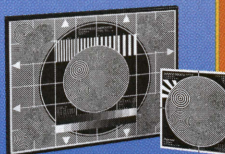
### ■ Wide Angle Adaptor

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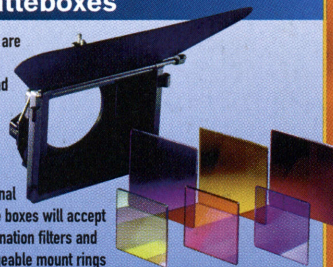
Tiffen - Winners of the 1998 Primetime Emmy Award for Engineering Excellence



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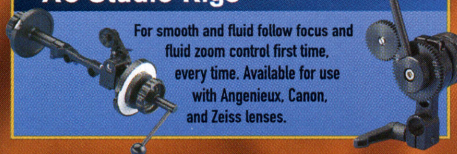
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AC matte boxes are available in a range of film and video formats and fittings. The perfect companion for Tiffen professional filters, AC matte boxes will accept single or combination filters and their interchangeable mount rings allow you to use one matte box with a range of camera and lens combinations.



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The AGE Mark V Director's Viewfinder and the new Pro Junior Director's Viewfinder have been designed to meet today's requirements for both motion picture and television productions. Features include diopter adjustment to suit

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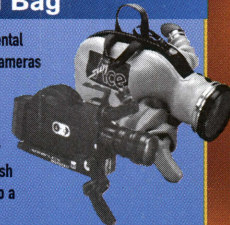
### ■ LCD Mini Monitor

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## AUDIO Radio Microphones

### ■ Audio DX

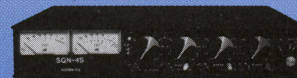
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# Production Slate

compiled by **Andrew O. Thompson**



## A Computerized *Conceiving Ada* by Mark Dillon

New-media artist Lynn Hershman Leeson's first feature film, *Conceiving Ada*, sets out to reclaim the rightful historical place of Ada Byron King, Countess of Lovelace. The daughter of English poet Lord Byron, Ada (played by Tilda Swinton) was a pioneering mathematician who, in 1843, wrote an article predicting the modern-day computer — a machine that would be used to create complex music and graphics, and serve a host of other practical and scientific functions. Her theories were inspired by her association with Charles Babbage (John O'Keefe), conceptualist of the "analytical engine," an ancestor of the computer that utilized punched cards as memory elements. Ada suggested a calculating plan for Babbage's engine that is today regarded as the first computer program.

In relating the story of this

visionary, Leeson appropriately uses computer technology which is groundbreaking in its own right. The patented process, known as "LHL for virtual sets," is a system in which all sets and props exist only as computer files. The director, an electronic arts professor at the University of California at Davis, received help from her students, who took 380 photographs of Victorian rooms in San Francisco-area bed and breakfasts in order to create an image library of locations and objects. Along with a picture of Ada's actual room obtained from London's National Museum of Science, the stills were saved in the computer as Adobe Photoshop files, then modified accordingly. "We took out all of the contemporary artifacts, such as electric lights or cords, and then color-corrected them," she explains.

The actors were then shot against a bluescreen with a Digital Beta-cam (later to be transferred to 35mm) while six digital artists on set did live composites of performers and the pre-made background computer files. Jim Rolin was in charge of the Ultimatte, which ran two separate video channels while they shot: a composite master tape with the backgrounds in place, and an "alpha channel" allowing foreground and background separation if desired later. (This was necessary so that the backgrounds could be manipulated in postproduction.) Much of the lighting and coloring was also effected in the computer. A digitally programmed flicker, for example, would give the impression of a room having a live fireplace. Jamie Clay from Digital Phenomena, Inc., was in charge of the matte work, using QuickTime movies for animation such as burning logs, or rain falling outside a window. Mattes were also used to achieve the effect of actors walking through nonexis-

tent doorways.

Computer-generated backgrounds may be common in modern moviemaking, but *Conceiving Ada* is one of the first features to have had substantial background compositing done live as opposed to in postproduction. This was of great advantage to the actors, who could position themselves within the virtual sets by looking at offscreen monitors. Leeson recalls how "many people said the actors needed real sets to feel as if they were part of the times, that they wouldn't be able to adapt to [the bluescreen approach], but the actors



really loved it because it called on their imagination. It was very spontaneous and interactive." She believes that the process also lent greater flow to the performances, adding, "When you're making a movie normally, it will take a great deal of time to do the lighting or change sets and get all of the props in place. But since everything was available at the click of a few buttons, we were able to shoot five or six scenes a day."

The audience's link to the 19th Century is Emmy Coer (Francesca Fariday), a modern-day genetic-memory expert who watches Ada's life unfold on her computer screen via a synthetic agent able to retrieve information from the past. Emmy's fascination with Ada is

Above and near right: Schematics of the virtual set-making process that director Lynn Hershman Leeson devised for *Conceiving Ada*. Shots of actors against bluescreen were composited within still images that were saved as Adobe Photoshop files.

Far right: Genetic-memory expert Emmy Coer (Francesca Fariday) receives guidance from her techno-spiritual teacher, Sims (Timothy Leary).



Images courtesy of HOT wire Productions.



# ON FILM

Wayne Kennan, ASC

"When I first started shooting *Seinfeld*, I heard Jerry ask the director, 'How does Wayne know how a scene should be lit?' I lit close-ups of the characters as naturally as possible. It wasn't about making the actors look glamorous, it was about lighting the character, which made it a real treat. A sitcom used to be like a play. Now, it's more like a feature with four cameras. The audience wants to see the person telling the joke, but they don't have to be over-lit. Every light and shadow should serve a purpose, because the audience expects film to look realistic. Cinematography is both an intuitive art and a craft. Part of the art is knowing which lights to turn off. By the way, after six seasons, Jerry knows how a scene should be lit, and I can almost tell a joke!"

Wayne Kennan, ASC, filmed *Seinfeld* for six years and currently shoots *NewsRadio*. His earlier TV credits included the last three seasons of the second *Newhart* series, *Uncle Buck* and *Get A Life*. His feature credits include *For Better or Worse* and *George B.*



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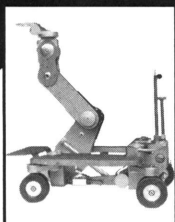


# Chapman / Leonard STUDIO EQUIPMENT

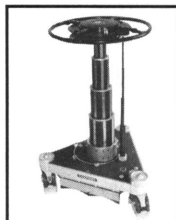
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and Remote Camera Systems*

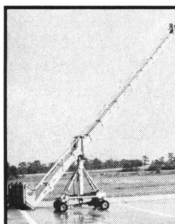
Super Nova	Zeus
Titan II	Nike
Apollo	HyHy® Base
Olympian	ATB I & II
Sidewinder	CS Base
Lenny Mini	Super PeeWee® III
Lenny Arm Plus	Hybrid I & II
Lenny Arm II	Hustler II
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rooted in the many parallels between their lives — both are trying to forge ahead with undiscovered technologies, and feel constrained by society's perception of women's roles. Late media guru Timothy Leary plays Sims, Emmy's techno-spiritual teacher. Unfortunately, Leary was in ill health, and knew he wouldn't be able to take an active part in the production. Instead, Leeson and her crew paid a visit to his house during preproduction in order to videotape him delivering his lines. To insert Leary into scenes in the finished film, his talking head was digitally placed on a large monitor in a futuristic room constructed entirely in CG by Jamie Clay. Although this solution was born out of necessity, it's dramatically effective, making Sims an oracle-like character communicating to Emmy like an electronic Wizard of Oz.

Emmy's scenes with boyfriend Nick (J.D. Wolfe), which did not require the bluescreen process, were shot on 35mm by Hiro Narita, ASC. The cinematographer had previously shot several big-budget fantasy films, but Narita felt more at home with this intimate story. "Quite by accident I got involved with *Honey, I Shrunk the Kids* [AC Dec. '89], and that led to more visual effects-oriented movies, such as *The Rocketeer* [AC June '91] and *Star Trek VI: The Undiscovered Country* [AC Jan. '92]," he says. "But at heart, I want to do more dramatic stories like *Conceiving Ada*. When the opportunity came, I jumped on it."

Born in Korea to Japanese parents, Narita later moved to Hawaii. Though he studied graphic design at the San Francisco Art Institute, Narita ventured into still photography and documentary work after being drafted into the Army in the mid-Sixties. Inspired by the films of Antonioni, Fellini, Bergman, Kurosawa, and the French New Wave, Narita gradually got involved in features, apprenticing for 3½ years in northern California with cinematographer/director John Korty. The cameraman is best known for working with cutting-edge technology on films such as *James and the Giant Peach* (AC May '96). "I've always admired Hiro's work," offers Leeson. "I felt very lucky he accepted

this. It seemed like an obvious choice, given the work he's done, and the fact that he lived in the Bay Area and was free for part of the shooting time."

Leeson did not want the 35mm scenes to be bound by the techniques of conventional film shooting. "We never shot master-medium coverage," offers Narita. "In terms of storytelling, Lynn didn't feel that was necessary. If you see a composition and you get the idea, you don't have to go in and do close-ups." He photographed this material on Kodak's 500 ASA EXR 5298 with a Panavision Gold II and primarily relied on a short Primo zoom lens. "If you're shooting 35mm and want to move the camera, that alone will take 10 or 15 minutes," Narita observes. "With a zoom lens, you can reframe in a matter of seconds. I was not thinking about [the quality of] prime lenses versus zooms at that point. I was more concerned about how quickly I could get certain shots done." The cameraman found that the location conditions partially dictated what focal lengths could be used during the eight-day shoot, explaining, "We couldn't go too wide because there was no set. We were using someone's apartment. To give a little visual impact, I tried to avoid the middle range — a lot of scenes were shot between 24mm and 40mm, with close-ups at 75mm."

Narita was also prepared to shoot the subsequent 10 days on the bluescreen stage. However, "that portion of the project unfortunately got pushed, and by the time they were ready to restart I had another commitment." He did begin the bluescreen period sequences, but later had to pass the torch to an acquaintance, videographer Bill Zarchy. Narita explains, "I met with Bill during preproduction. The story segments that involve video were to have a whole different look and quality from my filmed sequences, so we didn't talk [about maintaining a set style]. I felt he should call upon his own knowledge and experience with video. There was no real collaboration, so to speak, but we had to trust each other's instincts."

The production's limited schedule and resources (a budget of \$1.2



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**Right, top:** Writer/director Neil LaBute (in plaid shirt) explains a scene to actors Aaron Eckhart and Jason Patric, who also served as producer on *Your Friends & Neighbors*. **Right, bottom:** Lovers Cheri (Nastassja Kinski) and Terri (Catherine Keener) enjoy a tender moment. Cinematographer Nancy Schreiber, ASC favored directional but diffused lighting for the film's Super 35 photography.

million in cash and donations) forced the filmmakers to simplify the compositing process by shooting with a locked-off camera. Movements such as pans and zooms were created digitally in post, although Narita notes that on bigger productions such compositing requirements are no longer a constraint to camera mobility, given the advent of motion tracking and other techniques. "This kind of filming has advanced to the point where it's gotten a lot easier," he attests, well-informed on the difficulties of working with extensive visual effects on his previous features. "But it's still cheaper to lock off the camera."

The capabilities of digital postproduction proved a major time-saver for the director of photography, especially given the small budget. According to Narita, "When you shoot scenes against bluescreen, you can expose day or night interiors almost the same way, and then tell the digital artist, 'I would like to see the interior a little darker or a little bluer or with a little more contrast.' From the point of view of a cinematographer, I like to get as close as possible to the final image that will be projected on the screen. But in order to meet the daily shooting schedule, sometimes you have to rely on others to help with the corrections."

Both Leeson and Narita expect virtual sets to revolutionize the motion picture industry. "You no longer have to go on location or build extensive sets — it's quicker, easier and much less expensive [to employ computer-generated production design]," expounds Leeson. "Independent filmmakers will be able to have far more creative reach in what they attempt to do, because they won't be told that they can't do sci-fi, or a story that takes place in the Amazon."

Over the past five years, Narita has watched digital effects become faster and more affordable. He notes, "Remember when morphing first started? It was very expensive, but now you can do it yourself with a program that costs \$45. There are hundreds of effects people working out of their garage, competing with major companies." And despite the expansion of the

digital domain, the cameraman sees no reason to fear for his job. "The initial phase of these projects will still be shot on film. The photochemical film image is still what we're used to seeing. I'm not quite sure the electronic image is going to replace the film image, but they're certainly merging, and that's very good."



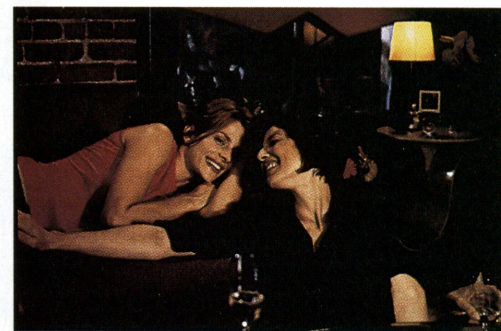
### In the Company of Men and Women by Eric Rudolph

Writer/director Neil LaBute, who shocked audiences last year with *In the Company of Men*, his blistering tale of male revenge, continues his scathing examination of gender relations in his second feature, *Your Friends & Neighbors*, which finds a group of six adults (played by Ben Stiller, Catherine Keener, Nastassja Kinski, Jason Patric, Amy Brenneman and Aaron Eckhart) mired in a complex and destructive web of deceitful sexual relationships. Even those familiar with LaBute's previous film are likely to be surprised at the laughs elicited by some of the awkward situations within his latest effort.

Another aspect of the picture that may catch audiences off guard is its rich, widescreen photography. Why shoot a dark comedy about relationships — especially one without a single exterior image — in widescreen? According to LaBute, "The widescreen format helps communicate the idea of people not connecting, and of there being emptiness and isolation. We likened this film's world to that of a leper colony. These people were quarantined; and

widescreen helped create some environments which were isolating, very cool and sterile."

Adds cinematographer Nancy Schreiber, ASC, whose credits include *Chain of Desire*, *Nevada* (AC June '97), *Lush Life*, *The Celluloid Closet* and *Visions of Light*, "Neil and I wanted these



characters to be bigger than life. Additionally, four to six people would often inhabit the frame — what better way to do that than with widescreen?" The 2.35:1 frame was achieved through the Super 35 process.

As with LaBute's previous picture, *Your Friends & Neighbors* is set in an unidentified city. "Neil doesn't want the location of the story to be involved with the storytelling," says Schreiber. "We completely avoided exteriors because Neil wanted to keep the interior drama interior." However, the filmmakers did want to acknowledge that a world existed beyond the inner settings, so "we tried to bring the outside in whenever possible," she explains. One notable example is a restaurant scene featuring Jerry and Terri (Stiller and Keener) shot in San Pedro, California.

Photos by Bruce Birmelin, courtesy of Gramercy Pictures.



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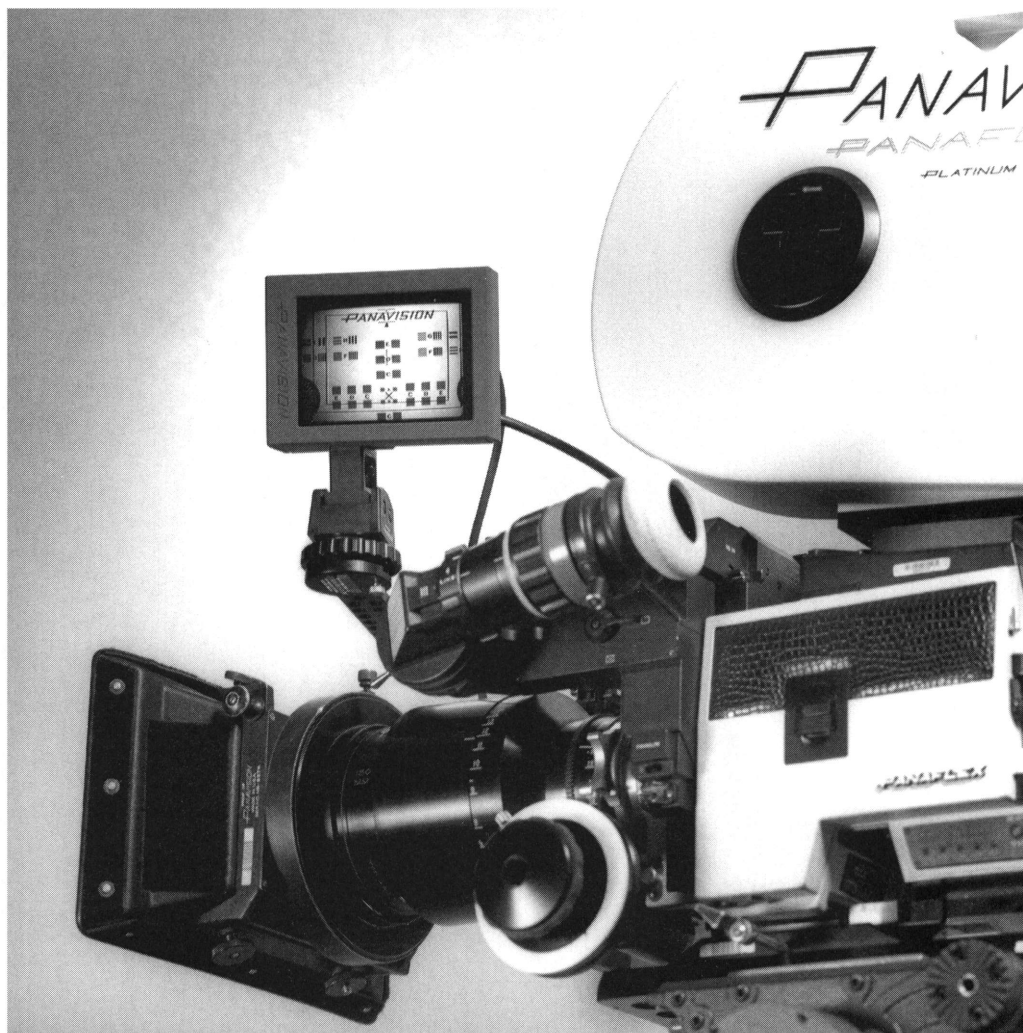
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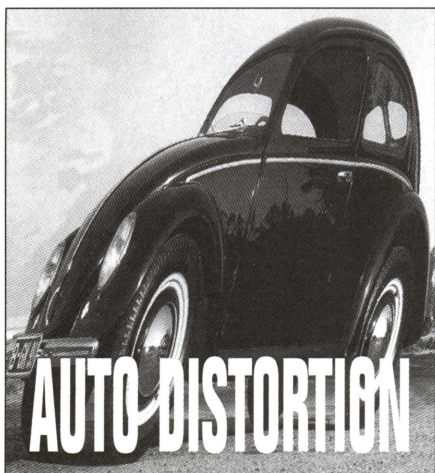
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Clearly visible through the eatery's windows is a street busy with cars and pedestrians. Schreiber details, "The narrow restaurant with its bare brick walls, combined with the old buildings seen through the window and the bustling street scenery created with extras and vehicles, combined to give those scenes the urban flavor of Manhattan's East Village."

Schreiber praises production designer Charles Breen (*Gang Related*, *Kissing A Fool*) for his ability to "understand and be consistent with the film's color palette while working in entirely practical locations." The dominant hues are based on the muted blues, greens and other earthtones found in the work of Edward Hopper, the famous American artist whose iconic paintings evoke vistas of loneliness and alienation. She also lauds set decorator Jeffrey Kushon for finding dozens of practical lamps to work into the locations.

In addition to being a small film with a wide canvas, *Your Friends & Neighbors* is also unusual in that it consists primarily of a series of wide-angle tableaux, a manifestation of the director's self-proclaimed desire for an "economy of vision." LaBute explains, "I wanted [the compositions] to be as unrestrictive to the viewer as possible, to take away that God-like mentality of forcing the audience where to look." This trait comes partially from the director's background in theater. "I'm comfortable with that 'box,'" he continues. "I'm also drawn to the pictures of filmmakers who have worked this way, such as Eric Rohmer and Mike Leigh, who often set the camera up as if to say, 'Let's just watch these people.'"

Schreiber was prepared to shoot an unusual-looking film despite static setups aimed at highlighting character interaction. "I knew that Neil was not interested in quick cuts and a lot of camera movement, partially because of his theatrical background," she says. "One of the challenges was finding a way to tell *Your Friends & Neighbors'* character-driven story and keep it visually interesting with shots that were mostly big and wide."



**Jerry (Ben Stiller) tries to placate Terri in the bedroom of their loft.**

To further exploit this broad scope, the filmmakers set the actors at the edges of the screen's frame. "Nothing is centered, everything is edgy," says Schreiber. "In scenes with only two people, they'll be way off to one side of the frame with all of these other elements balancing them on the other side."

In her overall lighting scheme, the cinematographer opted to add a strong directional element to the film's diffused illumination. This was a change of pace for her, as she generally favors soft light. "I didn't want typical comedy lighting," Schreiber adds. "I wanted a more naturalistic, edgy look, so I tried to keep the lighting at a side angle and motivate it either from windows or from lamps in the locations, which were all practical settings. If there weren't any windows I would, in effect, create them, setting the lights to suggest that the illumination was coming from a window."

An extreme example of this lighting approach occurs when the mismatched, selfish couple Jerry and Terri engage in a rather rote sexual coupling. This night interior was shot in a loft located in downtown Los Angeles, and Schreiber wanted the bedroom to be lit through its large windows. The unusual lighting emerged from a desire to avoid romanticizing the couple's relationship. Details Schreiber, "It was such an intense scene that I didn't want a candlelight effect, but instead something cooler. We ended up placing a line of Maxi Brutes on the sidewalk shooting up at the building across the street, to make the elaborate relief on its facade really

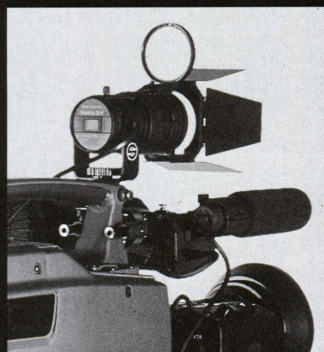


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pop out. To light the loft itself, I placed six 10Ks fitted with light-blue gels on the roof of the building across the street, and let that light come in through the windows." Only tweenies and bounce cards were used within the interior for fill. The strong blue-tinted sidelight creates a memorably uncomfortable *mise en scene* that immediately informs the viewer of this encounter's unsettling nature.

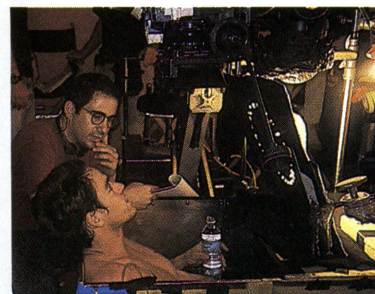
Schreiber's ability to dramatically light this key location was facilitated by the use of Kodak's Vision 500T 5279. Before committing to the stock, she tested the emulsion all the way through to the Super 35 IN/IP stages; she underrated the film at 400 ASA to obtain a thick negative that would hold up to the optical step process required for Super 35 formatting, ensuring that she would retain deep blacks. Notes Schreiber, "The relative ease and lower cost of lighting for this stock was a key to keeping the film on its 23-day schedule and within the approximately \$7 million budget."

The Super 35 approach to the wide-screen format came about partially because the tableau shooting style and off-center compositions called for the use of wide lenses with very little edge distortion. Schreiber chose Panavision Primo primes based on her extensive experience with them. "The Primos, especially the 17.5mm and the 21mm [both T1.9], which we used extensively, were almost completely free of edge distortion," she enthuses. The 27mm-68mm T2.8 Lightweight Primo zoom was utilized only for the Steadicam work employed during several scenes filmed in long takes.

To avoid the traditional, idyllic long-lens look for their close-ups — which would run counter to the film's hard-edged drama — the filmmakers captured these shots with Primo 75mm and 100mm lenses. Despite the relatively short focal lengths, Schreiber says that these shots are "still dramatic because there are so few medium shots."

The Super 35 process and soft lighting obviated the need for much filtration. "I knew that the optical step in Super 35 would degrade the image, so at most I used a ¼ Black ProMist," offers Schreiber. "I then further softened the images where needed with a specific light," which she achieved by placing a fixture in a Chimera and aiming it through another diffusion frame. The lighting of several large locations was facilitated by using helium-filled Airstar lighting balloons, which she found to be "wonderfully controllable" when cut with large flags.

At first blush, the mild-mannered LaBute seems to be an unlikely teller of such disquieting tales. The director explains that his films' unflinching take on male/female interaction have their genesis in his desire to find a new way to tell old stories. He offers, "In the case of *Your Friends & Neighbors*, which concerns adultery and



suspense pictures as Roman Polanski's *Cul-de-Sac* and Joseph Losey's *The Servant*. "One thing I really wanted to do with *Cleopatra* was to get back to the style of the dark psychological dramas of the 1960s, which people don't really make anymore," Reiss says. "The independent films we get today are mostly crime movies, romantic comedies and heartfelt dramas. I wanted to do something different."

In *Cleopatra*, Robert (Paul Hipp) is a nebbish whose controlling wife, Hallie (Bitty Schram), demands that they take a vacation. The pair entrust their home to "friends of friends": Zack (Boyd Kestner) and Sophie (Rhada Mitchell), an attractive couple who waste no time making themselves at home. Called back unexpectedly, Robert and Hallie find the house in disarray, but are unable to depose of their housesitters. Hallie departs in disgust after Robert falls for Sophie's kinky charms. Tired of Zack's



domineering ways, Sophie flees the house, leaving the two men to forge a dominant/submissive relationship that compels Robert to secretly plot against his tormentor.

A graduate of UCLA, Reiss worked in the early Eighties as an assistant director at Target Video, a San Francisco production outfit that specialized in taping live punk-rock concerts. He later toured the globe with Survival Research Laboratories, making a series of documentaries about the performance-art collective's antics, which featured machines and robotic participants. After producing several indie features, Reiss

### ***Cleopatra's Cinema of Submission*** by David E. Williams

Recently screened at the Los Angeles Independent Film Festival, *Cleopatra's Second Husband* marks the 35mm feature debut of both writer/director Jon Reiss and cinematographer Matt Faw. Alternately funny and chilling, the film is a morbid ode to such classic

Center: Robert (Paul Hipp) offers his malevolent bedside manner to Zack (Boyd Kestner) in *Cleopatra's Second Husband*. Top: Director Jon Reiss helps Kestner take his place while shooting within "the box."

Photos by Sherree Rose.



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turned to directing music videos, beginning with an award-winning clip for Nine Inch Nails entitled "Happiness in Slavery." He later worked with such bands as Slayer, The Black Crowes and Danzig.

Reiss's story for *Cleopatra's Second Husband* suggested an economical production that could be largely set in one location: the couple's house. "Finding the right location was a big hurdle, but so was finding our crew," the filmmaker recalls. "Los Angeles is very busy with productions, so it's tough to get a good crew together. I feel as if I wasted some time chasing after people I was familiar with due to my music video work. I talked to producers and cinematographers who I thought would be dying to break into features. They say that they were, but that business gets so cushy that nobody wants to leave; they can't afford to work on a low-budget movie."

A graduate of Florida State University's film program, director of photography Matt Faw joined the *Cleopatra* production less than two weeks before shooting began. He had previously shot several music videos and two 16mm features. "What stood out on Matt's reel was the fact that he had done a lot with very few resources on his previous projects," Reiss recalls. "That was pretty key on our film, because we had very little money. We needed somebody who wasn't used to having all of the toys and all the time in the world."

To help forge points of reference to be used throughout their shoot, Reiss and Faw screened several films, including *The Servant* (1963), shot by Douglas Slocombe, BSC; *Sweetie* (1989), photographed by Sally Bongers; and *The Young Poisoner's Handbook* (1995), shot by Hubert Taczanowski. "The latter two pictures had the colder look we were going for," Reiss explains. "I was also watching a lot of Rainer Werner Fassbinder's movies while prepping for the shoot, like *In a Year of 13 Moons* [1978, photographed by Fassbinder]. I would have loved to have had a month to work with Matt in preproduction. We didn't know each other at all, but after that, we did have a common film language. He could say, 'Remember that close-up shot



in *Sweetie?* and I would know exactly what he was talking about."

The duo consciously strove to avoid giving *Cleopatra* a "music video" style. "Jon wanted to avoid that," Faw remembers. "What helped was that most of our references and influences predate the music-video era, although some have sensibilities that have been widely used in videos. *Sweetie*, for example, was a strong inspiration for our framing style; we tried to place subjects in extremely awkward compositions, often on the edge of the frame or split by the edge, to suggest feelings of confusion and claustrophobia. That's a pretty common technique in videos, but we were also using it to help propel our story; most videos don't have a narrative to support."

Shooting *Cleopatra* in 35mm was primarily a financial consideration. "The camera package we got from Ultra-Vision [in Hollywood] was a little more expensive than a 16mm package," Reiss attests, "but we ended up getting so much free stock and such a great lab deal through Deluxe that the cost of a 16mm-to-35mm blowup would have used up any savings. Deluxe was so great to us that it would have cost much more to shoot in 16mm."

The camera itself was a Moviecam SuperAmerica, "which worked out really well because it's a very quiet camera," Faw attests, noting that the shoot largely comprised of tight location interiors. "The only issue was that we did some pretty extensive handheld work, and that particular camera is heavy. We just had the one body, and used Zeiss SuperSpeed lenses. We needed the extra speed, and Jon really wanted an edgy, rough look for the film, without letting the image quality become inaccessible to the audience. However, the rough look becomes even more so at the end of the picture."

Primarily shooting with short ends, Faw utilized a variety of stocks, including Kodak Vision 500T 5279 and EXR 5298 for the many dark interiors. "We rated the 98 at 800 ASA," the cameraman says. "That bumped up the grain a bit. And we sometimes rated the

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When Kartemquin Films, the producers of "Hoop Dreams," suddenly learned they would be going to Vietnam in three weeks to shoot a 1200 mile bicycle challenge of Vietnamese and American vets, they turned to a partner they could trust, Fletcher Chicago.

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79 at 1200 ASA, which kept us in the same grain range. Shooting at those speeds really helped with some of our locations, which were hard to light. At Bar Marmont [a nightclub on Hollywood's Sunset Boulevard], we basically used very dim existing light, but the 79 came through at 1200 ASA and the grain held." Conversely, a supply of 5296 was rated at 320 ASA, as the stock's grain would become too apparent if it was exposed normally and intercut with the 98 or 79. For this reason, Faw didn't find the timing process to be especially troublesome, despite the patchwork of emulsions he employed.

Given the story, Faw saw an opportunity to give the film a distinct visual pattern. "We open with a few scenes in Robert and Hallie's house in Los Angeles, which we played normally in terms of lighting. They then vacation in upstate New York, which we played as very golden and warm. When they return home, everything is very blue and overcast. That's not L.A., but that's their life. From there, the imagery becomes more stylized, with higher lighting contrasts, a smokier atmosphere, and more emotional lighting. It all becomes an evolving metaphor for Robert's life as he falls apart. This supports the story, but it also makes this one location — the house — continually interesting through the whole film."

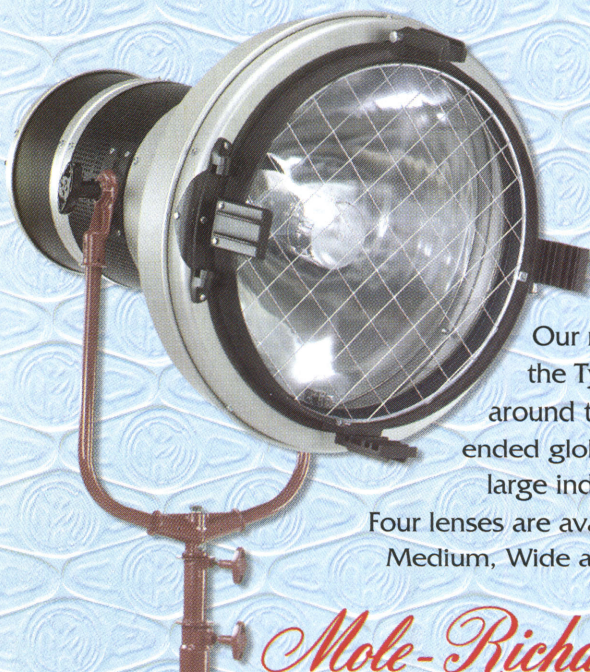
Faw notes that production designers John Di Minico and Thomas Thurnauer utilized a very strong blue color scheme throughout the house location. "Adding to that, we only used partial correction on the lens while doing most of our lighting with HMIs, which made all of our skintones go a bit more blue as well," he says. "That was where we started, and the strategy progressed as the story unfolds."

As for his general lighting approach on the performers, Faw found inspiration in Vittorio Storaro, ASC, AIC's masterful work in *The Conformist*. "I specifically looked at the way he handled contrast and people's faces," the cameraman says. "The key tends to be a 1½ stops over, while the fill is 1½ down, with both the key and fill fixtures placed



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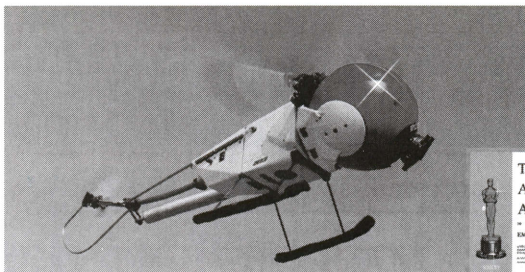
very close to the actor — together, they create their own kicker. Such an approach gives faces a very beautiful, radiant look, and enough detail in the shadows. That was important to us, because much of this film's story is told in very subtle facial expressions."

While the house location was problematic due to its cramped confines, Faw notes that another close space proved even more demanding. In the film, Robert slowly poisons Zack and later seals his weakened foe in a metal-sheathed, coffin-like box hidden beneath the house. A closed-circuit TV system allows the two men to converse. "Zack is in the box for virtually the last third of the film," Faw says. "To keep that visually interesting, we really worked to create a variety of camera angles, but our lighting had to remain constant."

It was determined that the lighting had to be incorporated into the box's structure, so recessed panels were built into the side walls, covered with translucent Plexiglas, and lit from behind with small tungsten fixtures. From the front, Faw utilized a small lamp with a gobo featuring a ring of small holes. This created a circular highlight in actor Boyd Kestner's eyes. As the character weakened, Faw progressively covered successive holes in the gobo pattern, slowly diminishing the reflection and suggesting the character's fate. The scenes set within the box were later lit slightly green (and later timed more green) to suggest "aging," while lighting reflections from the box's metallic surfaces and Kestner's sweat-soaked skin create a distinctly creepy feel.

Faw credits gaffer Rory King with prelighting ahead of the camera, allowing the production to move into spaces that were ready to shoot after minor adjustments. He concludes that working with Reiss turned out to be a much different experience than he had expected, given the director's previous body of work and somewhat ghoulish tendencies. "Jon is very down-to-earth and personable," the cameraman offers. "He was sincerely interested in just making the best film possible." ■

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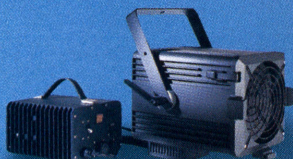
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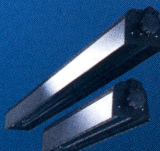
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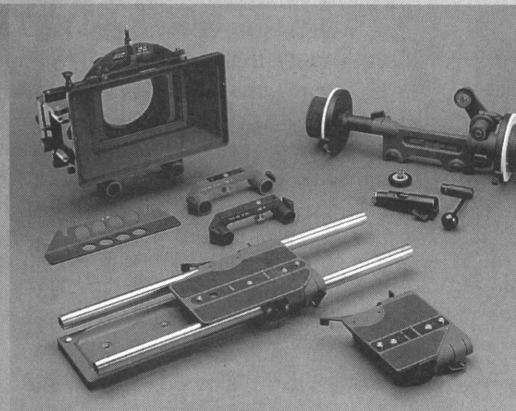
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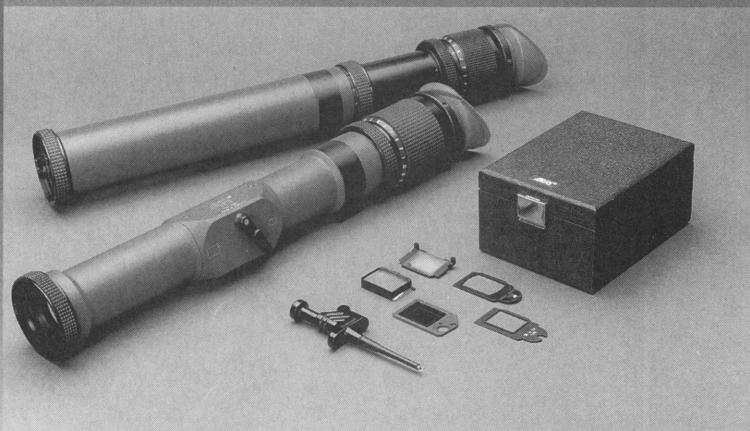
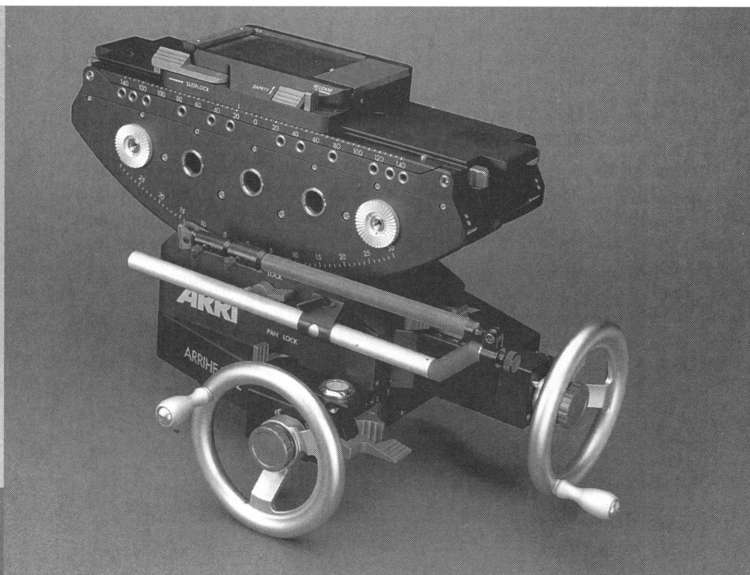


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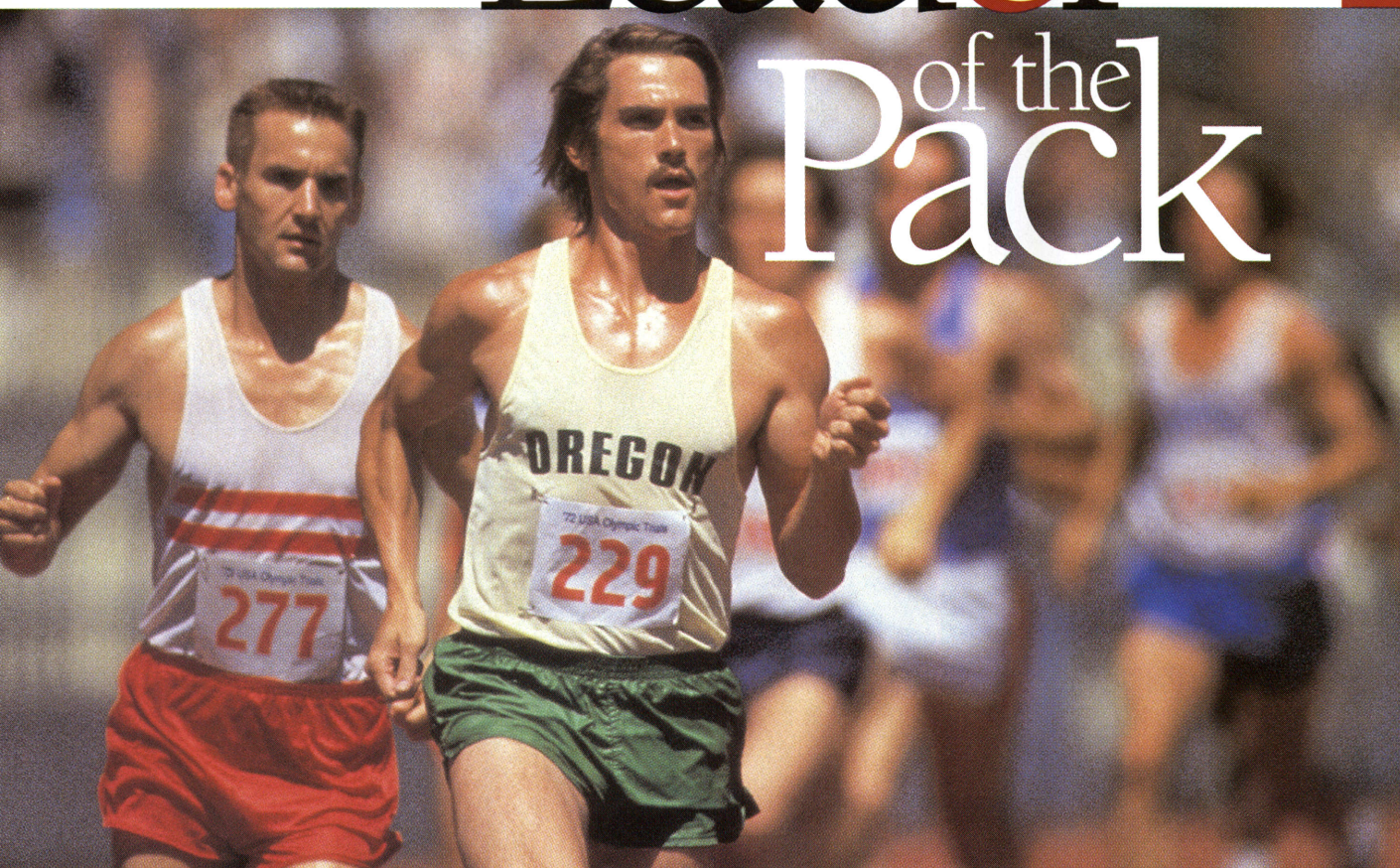
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# Leader of the Pack



Director of photography Conrad Hall, ASC  
discusses how his work in *Without Limits*  
helps define a complex character  
racing through life.

Interview by Caleb Deschanel, ASC

Edited by David E. Williams

Photography by Linda R. Chen

Writer/director Robert Towne's new film, *Without Limits*, examines the life of legendary American track star Steve Prefontaine (played by Billy Crudup), a young man whose uncompromising determination to win *his* way sometimes cost him the race. Called "Pre" by both friends and admiring competitors, the athlete died at the age of 24 in a tragic 1975 auto accident, yet had already made his mark by appearing on the cover of *Sports Illustrated* in June of 1970 as a college freshman at the University of Oregon; breaking all seven U.S. running records between 2,000 and 10,000 meters; and competing in the 1972 Olympic Games (where he finished fourth, just missing a



medal). Prefontaine was a crowd favorite who fiercely gave his all during every second of each meet. "Most people run a race to see who is fastest; I run a race to see who has the most guts," he once declared.

*Without Limits* was primarily photographed on location in Eugene, Oregon, specifically at the University of Oregon's Hayward Field, where Prefontaine ran some of his most memorable races under the guidance of coach Bill Bowerman (Donald Sutherland). Competitive off the track as well, Prefontaine struggled against the rigid regulations of the Amateur Athletic Union, which he felt restricted runners from performing on their own terms.

Equally familiar with challenging convention is the picture's director of photography, Conrad Hall, ASC, who previously worked with Towne on the 1988 neo-noir thriller *Tequila Sunrise* (see AC Jan. '89). The collaboration, which Hall described at the time as "the best relationship I've ever had with a director," earned the esteemed cinematographer the ASC Outstanding Achievement Award, as well as an Academy Award nomination. Hall previously took home an Oscar for his work on *Butch Cassidy and the Sundance Kid*, and has been honored with five other Academy nominations, for the films *Saboteur: Code Name Morituri*, *The Professionals*, *In Cold Blood*, *The Day of the Locust* and *Searching for Bobby Fischer*. His other feature credits include *Harper*, *Cool Hand Luke*, *Fat City*, *Marathon Man*, *Black Widow* and the 1994 remake of *Love Affair*. He recently completed principal photography for the courtroom drama *A Civil Action*.

Our interviewer for this story, Caleb Deschanel, ASC, is an outstanding cinematographer in his own right and recently received ASC and Academy Award recognition for his work on *Fly Away Home* (see AC June '97). Deschanel has also earned Oscar nominations for *The Natural* and *The Right Stuff*. His other feature

credits include *The Black Stallion*, *Being There* and this summer's romantic drama *Hope Floats*. He recently shot *Message in a Bottle* on location in Maine.

Hall and Deschanel's conversation about *Without Limits* — formerly titled *Pre* — was conducted at the ASC Clubhouse in Hollywood. Among other things, they discussed the use of the Preston Cinema Systems' Light Ranger, a unique auto-focus unit that allowed Hall to

we created on *Tequila Sunrise*, and it was wonderful. Bob doesn't look though the camera very often, and on *Tequila* we didn't even use video assist — I was against it and he wasn't for it.

**Did he just sit back with his binoculars and watch the scenes?**

**Hall:** [Laughs] Yes, that's right! Bob's usually there right by the camera, watching for what he wants to see from the actors. I assume that would usually be their faces. And oftentimes he doesn't quite have in mind what's going on with the camera, because when I occasionally do call him over to check a shot through the viewfinder to make sure we're on the right track, he'll sometimes be in awe of what he sees. Whatever he had

capture some of the film's striking race action (see sidebar). Joining this portion of the discourse was the device's inventor, Howard Preston.

— David E. Williams

**Caleb Deschanel:** You've worked with Robert Towne before. How did your working relationship with him evolve on this new film?

**Conrad Hall:** Robert and I became friends during the making of *Marathon Man* [1976]. He'd been asked to do some additional writing on a scene — unbeknownst to [screenwriter] William Goldman — and we struck up a friendship. The best way to describe our working relationship is to say that Bob writes with words and I write with pictures, so the two of us make a complementary storytelling team for film. He has his own ideas about visualization, but after rehearsing the actors, he lets me choose how to visualize his words. I'll then set out a plan of attack for a scene and we'll go through it together, adding and subtracting things until we have a final plan. That was the relationship

imagined in his mind's eye was often quite different from what we'd done because he's not really trained to translate words into a visual form. But he's usually quite happy and we have a great time working together.

**That sounds like a great relationship. Directors aren't always like that!**

**Hall:** As we both know. Now, on *Without Limits*, Bob and I both wanted to continue with the working process we'd developed on *Tequila Sunrise*, but I had some problems with the script. I'd read an early version and I didn't find myself emotionally involved with the story. I generally look for stories involving ethical and moral dilemmas — traditional drama. But I didn't see the drama in Steve Prefontaine's story. There were a lot of track meets and some story points about the different philosophies Pre and his coach had about how to win a race, but that wasn't enough for me and I turned down several versions of the script. After the last one, I recommended several other wonderful cinematographers for the job — including

**Opposite:** Steve Prefontaine (Billy Crudup) takes the lead. Director of photography Conrad Hall often used long lenses to compress the space between runners and single out particular athletes. Left: Hall, flanked by fellow camera-man Caleb Deschanel (right) and Light Ranger inventor Howard Preston at the ASC Clubhouse in Hollywood.

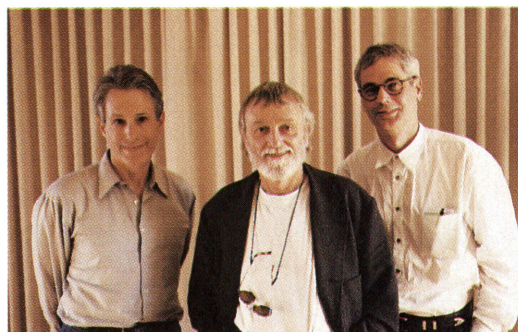


Photo by David E. Williams



# Leader of the Pack

yourself — who evidently read the script and also turned it down.

That's surprising, because I always think of Bob Towne as being a writer who can always find the mythological cord in a story. And in its finished form, I find the film to be wonderful. In subsequent versions of the script, he obviously found the sense of drama you describe.

principles, because of the way he wants to win, and because he has to be true to himself and his abilities.

Hall: The idea of winning a race by laying back until the last lap and then pulling ahead was absolutely contrary to his philosophical ideas about winning. He had to test himself by always being out front. But he isn't likable [as a char-

that to the movie?

Hall: I usually try to think of some aspect of the story which represents its 'soul,' so to speak — something I can hang my hat on. Using my latest film [*A Civil Action*] as an example, maybe it will be something about 'truth' and how lawyers will get together to divert people from knowing what it really is. How can I help represent that visually? I also use references — books, magazines, or even philosophical ideas that come to me. For *Without Limits*, I watched some films about the Olympics and found one absolutely stunning documentary, *Tokyo Olympiad* [a.k.a. *Tokyo Orimpikku*, 1965], which is about the 1964 Summer Games held in Japan. It was shot in anamorphic widescreen, and while watching it, I knew then that my film would have to equally use the big screen — to be larger than life.

I'd like to talk about the various elements which were important in developing the style for this film, and how you knitted them together. There's lighting, lens choices, camera movement — these are all different elements that resulted from decisions that you made.

Hall: I work somewhat organically and try not make decisions in advance. This begins with facing the material of the day, which often changes. Then I want to see how the actors are dealing with the material and what the location brings to the scene. But because schedules change so often, I try not to pin things down so much. For example, there's a scene in which the coach [Bill Bowerman] is lecturing his team about haircuts. This was originally to be shot in a certain building [on the University of Oregon campus], but on the shooting day we couldn't get access to the location. Suddenly everything changed and we had to find someplace else to shoot. Well, they chose the sunny side of the track stadium, which ran east and west, and that meant we had to figure out how to



Hall utilized various rigs to keep his camera within the runners' world, allowing the audience to interpret the characters through their athletic performances.

Hall: He did. Later, while I was in New York helping Piotr Sobocinski with some additional photography on *Marvin's Room* while he was busy shooting *Ransom*, a new draft of the script [for *Without Limits*] arrived on a Sunday morning. I then got a call from Bob, who asked me to read it one more time. Well, 20 pages from the end, I stopped reading because I had to call and tell him that he had written exactly what I needed for the story, and I wanted to be involved.

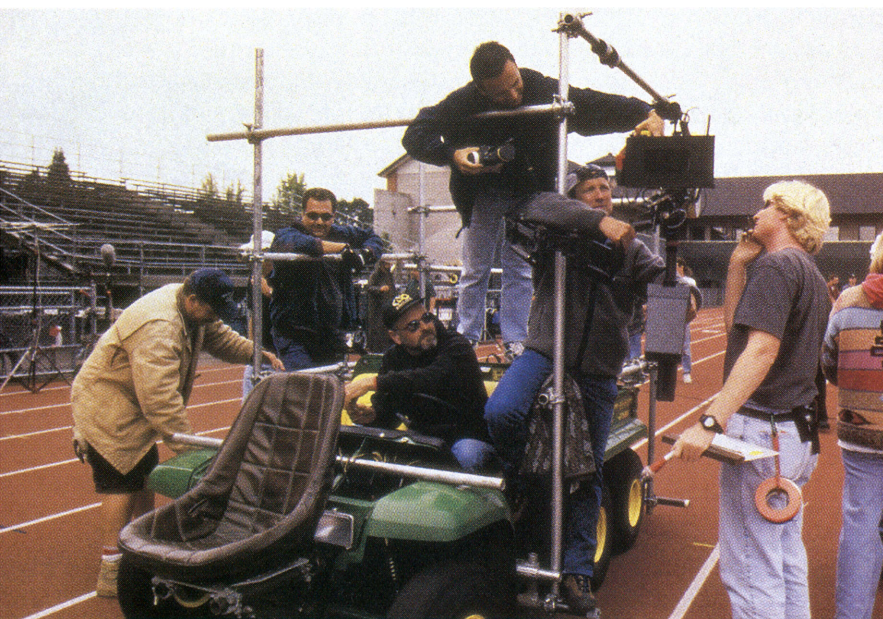
For me, Steve Prefontaine was an unlikable character. What's remarkable about the film is that while he comes off as being brash and unappealing, by the end of the movie you're in love with the guy. He ends up losing races because of his

acter]. I wish I could articulate what it was about Robert's revised script that made me want to do this film, but it did have all of the human elements I was looking for.

Well, I think the big thing for me was the relationship Prefontaine had with his coach, Bill Bowerman. Both were strong people with strong opinions who weren't willing to give in to each other. Those are qualities that you find in Greek myths, where you have characters who come in conflict for their very different ideals and the story ends with no real resolution, but with a mutual respect.

Now, after you've read a script and started talking with a director, when and how do you start deciding on an overall visual style and determining how you're going to bring





get the scene done before the sun came around and smashed right in there. But we couldn't, and it became a survival situation where we were blacking out large areas to keep our lighting consistent. It was a nightmare, but I can't get too philosophical about it because it would kill me!

I'm glad to hear you confess to the realities of filmmaking! [Both laugh.] So many people are self-serving about these things and try to suggest that everything was designed in advance and went according to plan. We all try to have influence over the situation, but there are always the times when the sun is setting and you're running around like crazy just trying to get an exposure to shoot.

Hall: Sometimes it still comes out wonderfully, and even if it doesn't, the story can occasionally carry you through the rough areas.

But you bring a lot of the history and experience to a show, and when you're good at something, even your worst [work] is going to be pretty good. Nonetheless, the process of making a particular film — all of those situations like the one you describe — add up to create a certain visual unity which makes this film look different from *Tequila*

*Sunrise*, *Marathon Man*, and all of your other films. Each one has its distinct visual elements, which define what people think of as 'Connie Hall' photography. I'm sure a lot of that comes, as you've said, at the spur of the moment, but it's interesting to me to try to discover a cameraman's specific visual style within a body of work, and understand how it's being applied to those different stories.

Hall: Well, what I try to do is understand the material, and then understand how the director sees it as well. On *Without Limits*, I was a

bit confounded; I had a vision of the script, but as we got into the process of making the film, we also had a lot of advisors working with us — Pre's friends and coaches — who knew his story first hand.

Reality raises its ugly head.

Hall: [Laughs] Yes it does! Here we are making a movie, translating a real story into dramatic terms. We're not thinking about where it *actually* took place. Did a particular conversation between Pre and his coach happen 25 yards over there, or here where the light is better? We had some struggles with that sort of thing, because Robert was very devoted to the people who really knew Pre — those who ran with him, coached him, and were friends with him. Robert relied on them for veracity, because he wanted to be true to Pre's story. But being true to any story does not necessarily mean filming it exactly the way it happened. You have to interpret it, using long or short lenses, composition, backlight, frontlight, overexposure, darkness — whatever it takes in order to create the story. Robert and I had less-than-perfect relationship in this regard, because he was trying to be very true to reality. I've generally found that reality should not be involved in the creative process. You should *know* the reality, but then go

Left: In order to make a single track appear to be several different racing venues, as well as differentiate each respective race event, Hall and director Robert Towne carefully plotted a unique visual style for each sequence, which required various camera rigs depending on the desired effect. Bottom: Towne, Hall and actor Billy Crudup chat on the track at the University of Oregon, where the real Prefontaine ran many of his best races.





# Leader of the Pack

**Top:** Track coach Bill Bowerman (Donald Sutherland) works on a custom racing shoe. **Bottom:** Pre confronts his girlfriend, Mary (Monica Potter). Hall's use of lighting was partially determined by what he observed while scouting locations, then reinterpreted to support the dramatic crux of a given scene.

ahead and use whatever dramatic storytelling is necessary to best represent it.

This film is reality once removed; Prefontaine has been converted into a character who's more mythic than reality would allow. But let's discuss some other specifics. I remember a beautiful nighttime scene set in Pre's trailer where he and his girlfriend, Mary [Monica Potter], make love. There's this wonderful light coming in through a window above them. What inspired you to light the sequence that way?

Hall: During the course of scouting locations for the film, we paid careful attention to how places were lit naturally. In the case of these little trailers, I noticed how shafts of light came in through the windows during the day, creating pools. I liked the effect and re-created it for our lovemaking scene by establishing a strong source outside. After the set was lit, someone said, 'Hey, that looks like daylight out there.' I replied, 'No it isn't — it's just a strong toplight.' Out of the context of the scene, it might not have looked right to their eye. But the love-making in the scene was an influence on me. Lovemaking looks more romantic when it's darker — thus adding a sense of mystery — but the pools gave these nice highlights to the actors' skin. Again, this was inspired by what was there. I don't like to make elaborate plans. I should add that the production design team can have a lot of influence on what I do, so I keep track of what they're doing.

Your lighting always feels real, but in many shots, there's often light in a particular place that draws the eye to the key element in the story. It's as if you're using light to make the audience understand where to

look in the frame.

Hall: Again, it's like working on a canvas. I look through the ground glass and when I'm putting things together, I'm filling in the important aspects of the story which have to be told in that shot. Whether that means keeping the characters dark and lighting the background, or whatever else, the story is telling me to hide or illuminate something.



I know this kind of stuff is hard to explain. I'll play around with something until I feel it's right. If something's wrong, I get this sick feeling in my stomach that makes me upset. I wish we were on a stage and I could just have you re-create some of these scenes layer by layer!

Hall: I did that once for a class at USC. There were about 50 people watching while we worked with some actors and a director and I lit it. After I was done, somebody said, 'Okay, turn off all these lights and tell

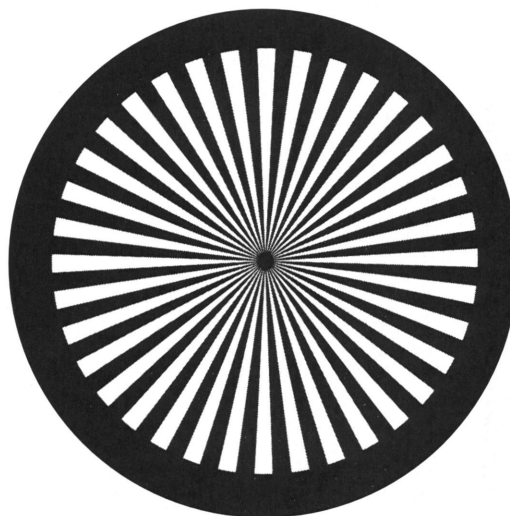
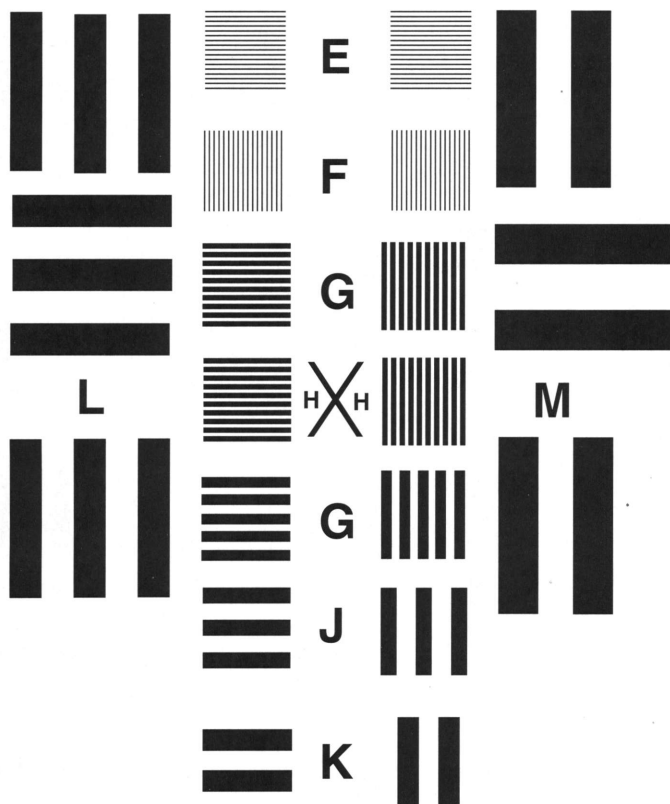
me what *that one* does.' We went through each and every lamp. It was a pretty easy thing to explain, but that was *after* the fact. I don't think about any of these things while I'm lighting a scene; I have no idea what I'm doing! I just try to feel it and illuminate this and hide that — to add a gasp here and a surprise there. It's a visual language that allows the audience to feel and understand the story.

It was almost exactly 50 years ago, in the spring of 1948, that I started studying cinema at USC. In the years since then I've tried to pay attention to life, and learn to tell stories with film language. Now, the language is 100 years old, but I don't know if I've paid enough attention to the craft of cinematography as it has evolved — and is evolving — so rapidly. I don't know *how* to pay attention to it. I'm so disinterested in computers and mechanical things — shooting bluescreens and greenscreens. You can do some wonderful and magical things with that sort of technology to create stories, but I'm personally not very interested. I remember how I learned to do things a long time ago, and I'm going to hang onto that, which limits the kinds of stories I'm going to tell. I suspect you have some of this feeling as well.

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# Speed and Sharpness

Still photographers have long enjoyed the benefits of auto-focus technology, but the technical and artistic demands of imagemaking are far more complex for cinematographers. Within each shot, directors of photography not only deal with the issue of image sharpness, but subject action, focal-plane shifts, and camera movement — often all at once.

While not a replacement for a good first A.C., Preston Cinema Systems' unique Light Ranger follow-focus device has proven itself invaluable under certain conditions. This tool can automatically focus the lens through the use of an operator-controlled infrared laser and a geometric triangulation system, which determines the distance between a subject and the camera focal plane and drives a focus motor. The unit is normally mounted on its own tripod, separated from the camera by a convenient distance. An encoder head provides pan and tilt angle data so that parallax effects may be canceled out. In cases where parallax effects aren't significant, the unit may be mounted on a conventional head.

"I'd never heard of the Light Ranger before making this film," *Without Limits* director of photography Conrad Hall, ASC admits, "but everybody started talking about it once we began doing some tests." Both the cinematographer and director Robert Towne decided to utilize extremely long lenses and high frame rates to shoot key portions of the film's many running sequences. This would allow them to compress the space between central character Steve Prefontaine and his competitors, and also separate individual athletes from the field while analyzing their movements and expressions in slow motion. "There are shots done with 800mm lenses where you can see an entire 220-yard or longer run as Pre comes directly toward the camera, perfectly in focus as we tilt from his face to his shoes and back," Hall

details. "Without this device, it would have been a nightmare for us to get those shots the traditional way, with follow-focus marks. Also, there are only so many times that performers can repeat action like that, so doing fewer takes was a benefit."

The inventor of the Light Ranger, Howard Preston, adds, "The need to watch the running action so closely and poetically made this a perfect application for our system."

The Light Ranger offers four modes of operation: Manual (in which the focus is controlled by a manual-control knob and the focus setting is displayed on a digital readout), Automatic (where the lens is automatically adjusted to the measured subject distance in the readout), Offset (in which the focus is still automatically adjusted but offset by a distance manually set by the operator), and Split (which allows focus "pulls" to be manually controlled by the operator). These capabilities came into play for Hall while filming a footrace between Prefontaine and rival Frank Shorter, since the cinematographer wanted the focus to smoothly transfer back and forth between the men as they jockeyed for position.

Despite the Light Ranger's capabilities, Hall notes that the device can have operational problems under specific shooting situations, such as while trying to follow focus on someone driving a car (a situation in which the windshield or other glass surfaces may deflect the distance-measuring laser and create false readings). Also, having the camera and Light Ranger at differing elevations can affect accuracy unless such variations are accounted for.

Assessing the Light Ranger's impact on the running sequences in *Without Limits*, Hall notes, "Surely it's even more critical to have perfect focus while shooting in slow motion, as you're expanding the action to such a great extent and emphasizing things that would not have been seen

at normal camera speeds — the actors' musculature rippling, their breathing becoming more labored, their hair flowing, the sweat beading on their skin. With the Light Ranger, you have the opportunity to study all of these things as they're happening. It becomes poetic, and makes the races interesting even though we know who's going to win!"

Hall adds that since wrapping *Without Limits*, he has used the Light Ranger on several commercials, again primarily to enhance high-speed photography: "The effect of maintaining perfect sharpness is very impressive, and I much prefer this method to stopping down to an f16 to carry the focus, which also builds up the contrast."



Setting up the Light Ranger during filming at the University of Oregon.

"There are so many constraints on cinematographers who are trying to look at things in a new way," Preston remarks, "and I hope this tool removes at least one of them." He adds that continued use of the Light Ranger has led to design improvements, while noting that his current goal is reduce the size of the device and "make it as easy to use as a light meter." Currently, a qualified operator must accompany the equipment into the field.

In addition to *Without Limits*, the Light Ranger has recently been used on such pictures as *Hard Rain* (for low-light scenes, as detailed in AC Jan. 1998) and *Thirteenth Warrior* (for horseback sequences).

— David E. Williams



the drama in front of the camera while it's going on, rather than imagining how five [visual effects] elements are going to be composited together to create something. But like anything else, I think there is a tendency to overuse anything that's new.

**Hall:** These new tools are handy I guess, but I'm still looking for those wonderful little stories about human and ethical dilemmas — they're sometimes hard to find.

Having watched you work a number of times, I know you have a tendency to ignore certain technical aspects of the craft. I've heard you say, 'Oh, bring me a light that's about this big.' [Both laugh.] Now, I know you're talking about a 10K, but do you deliberately just want to free your mind of all of those details?

**Hall:** Should I know all the names of all the lights? There's just so much new equipment coming out all the time. In terms of lights, I basically work with big lights and tiny lights. I simplify. I'm loathe to take walls out to shoot a scene. A production designer I recently worked with said to me, 'Conrad, when you shoot, you have a circle around your subject and you work within that circle. When Piotr Sobocinski shoots, he peels the circle back, leaving just a wall here behind his subject. When Emmanuel Lubezki [ASC, AMC] shoots, he does the same thing, but then he kicks a hole in the wall to make space for a backlight.' Well, I like the reality of shooting in a room with set dimensions. I'm not used to tearing out a wall and pushing back 40 feet so I can use long lenses. I've just never thought about working that way. I like to live in this kind of formal reality, in the same way that a painter lives with a canvas of a certain size. That sets up certain rules and suggests an approach without creating the possibility of the viewer being somewhere he or she cannot be.

Do you think that adds to the filmic or dramatic reality you're

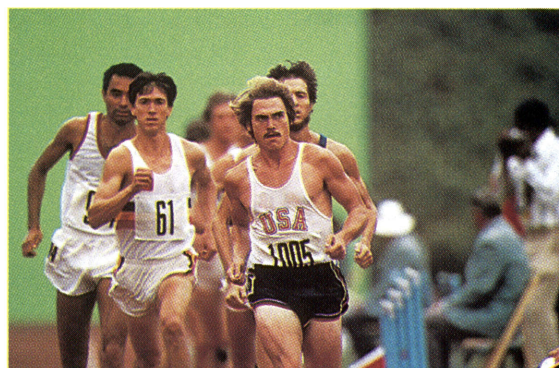
trying to establish?

**Hall:** Not necessarily. It's just a way of looking at things. You can work any way you want to, but what counts are things like focusing on the material and understanding it visually. How do you see this — from a certain person's point of view? Does everything key off of how one person sitting there sees the action? Or is the camera a voyeur — does it provide a storyteller's point of view? I think the point of view is extremely important.

What that's asking is, 'Where do you want to put the camera?'

**Hall:** Exactly. When I go into a scene, I first try to understand what's important for the audience to see in order to appreciate the story. If you have several characters, you have to determine how they will be composed. Will they be covered separately, or together in the frame? I know there's not just one way to attack a scene, so again, I rely on my instincts to feel what's right.

There are four or five important races in the film, with the Olympics events maybe being the most obvious, but each has a different feeling so we don't have the sense that we're watching the same thing over and over again. Some are very intimate, with the camera right in there with the runners, while others are more detached and shot with long lenses. Part of these feelings



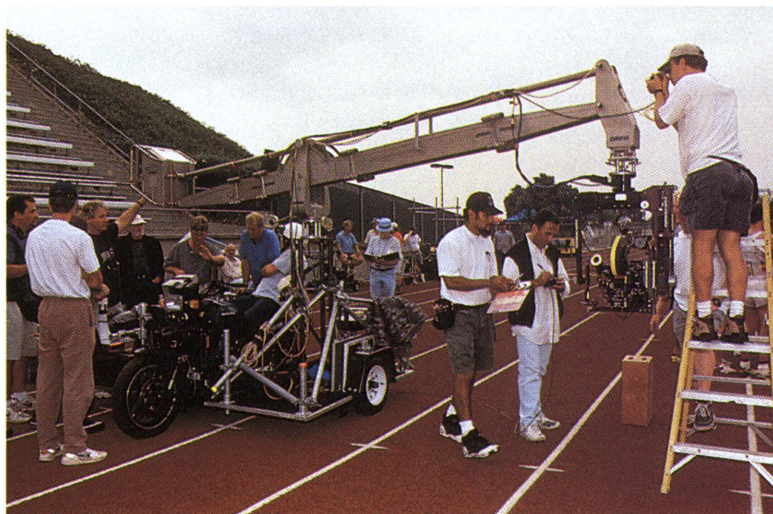
also come from the way the scenes are handled dramatically and editorially. How did you decide how to cover each race? Was it just a matter of covering things very thoroughly and supplying enough material?

**Hall:** I believe there are eight races in the story, and Robert had some very definite ideas about how to approach shooting some of them. One I remember distinctly was the long race Pre had with [running rival] Frank Shorter [played by Jeremy Sisto].

That scene was very interesting dramatically because Prefontaine and Shorter had a gentleman's agreement to exchange leads at every lap — they would change positions until the end and then race to win. The key moments were those changes.

**Hall:** That's right. It created a sense of suspense while also significantly portraying Pre's character, which gave Bob some very interest-

Above: Hall's frequent use of extreme slow motion helped bring out the invisible detail in the runners' performances, compelling the cameraman to coach the actors not to overplay their actions and emotions. Bottom: Short crane arms and remote heads were extremely useful in bringing the camera close to the runners without hampering their movements.





# Leader of the Pack

ing ideas on how to shoot the scene. In fact, I should mention that Bob carefully storyboarded almost the entire film. We didn't always follow the boards, but they were very useful in creating a distinct look for each race. That was important, because

field, catching up with the two exhausted runners at the end of the track. We only see the result of the race much later. That was all planned by Robert. The sequence also included inserts of the runners warming up and toeing the starting

because, as you noted, we generally know the outcome of these races.

Hall: Again, the slow-motion effect reveals expressions that would normally be hidden. Now, I'd like to touch on the fact that I became sort of lost during the making of this film because we were shooting all of these track meets at once. It was hard to follow the cutting continuity of each in my mind's eye. Further complicating matters were the time constraints of the schedule, which required writers to rewrite, shorten and condense scenes together. Because of that process, I also sometimes found it difficult to follow the dramatic continuity of the film, other than during specific sequences, like when Pre loses his race at the Munich Olympics.

Well, that part of the story alone makes the film quite different, because unlike most sports films, it doesn't lead up to Pre winning in the end. This is a film about a someone who is difficult to like and loses the biggest race of his life. But by the end we love him.

Hall: It's that aspect that drew me to the story. At the end of the film there's a wonderful scene between Pre and Bowerman where they talk about the running and the idea of winning, and what it all means. Their conversation suggests that someone can change, and might perhaps want to change and become something else. It's that growth that makes you come to love Pre as a character. In the last scene of the film, Bowerman gives a eulogy that makes it clear in the audience's mind that Pre was a young person struggling to do the best things for himself. ■



An early scene in the film depicts one of Prefontaine's high school cross-country races.

we were basically shooting them all simultaneously, usually on the same track location, while trying to make them look like different places by suggesting different weather conditions, restaging the races, and using different visual methods.

Bob's storyboards for the Shorter race were wonderful. He first wanted to emphasize the difference between the two men's positions as they ran by using very long lenses, with the runner in front in sharp focus. He'd then repeatedly cut back to the same point on the track during each lap. That way, in each shot we'd watch the space between them gradually diminishing as they overtook each other — with the runner coming from behind taking the focus with the lead.

Then, to hide the finish and maintain the suspense for the audience by not letting them know who wins, the camera swept through other athletes in the middle if the

line, as well as the reactions of those watching the race — much of which was done in slow motion.

Did you do a lot of tests with camera speeds to determine how you'd shoot your slow-motion material?

Hall: No, it was more instinctive — depending on whether we wanted moderately slow or very slow. We were usually at about 96 frames per second. But there is tremendous grace and beauty in slow motion as you watch the human body moving rapidly.

In depicting eight races, you had to find every ounce of detail possible to tell the stories differently and illustrate how these athletes are testing the limits of physical ability. There's one race that Pre runs with an injured foot — bandaged and bloody — and it's so extraordinary because every time he takes a step we can feel his pain. And this is even more important



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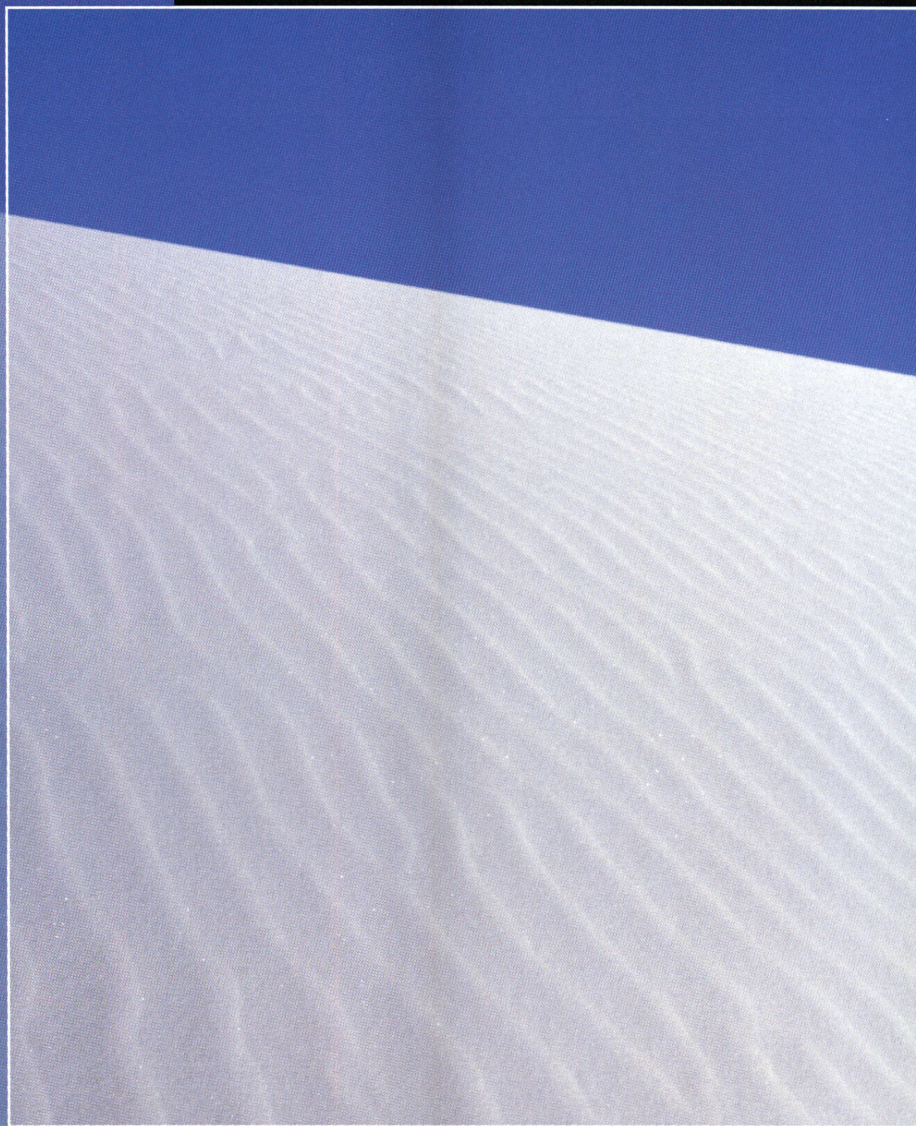
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# Brush With the Gutter

*Love Is the Devil* explores the  
tumultuous life and art of  
notorious British painter  
Francis Bacon.

by Holly Willis

Photography by Jorge Leon

**L**ove Is the Devil: A Study for a Portrait of Francis Bacon is a disturbing film, but the dark tone is fitting. One of the film's characters brands Bacon the "morbid poet of the world of evil," and indeed, not only could Bacon himself be an unsavory character, but his paintings, with their bloody violence, are much more harrowing than beautiful. In his loose depiction of one period of Bacon's life, director John Maybury, who is best known for an array of stylish music videos as well as the remarkable "electronic film" *Remembrance of Things Fast*, opted to forego the high-tech gadgetry he has used in the past. Instead, he mined cinematic history for basic camera tricks and the most rudimentary filmmaking methods to render a portrait whose brute ugliness perfectly underscores both the horror and beauty of Bacon's work.

Born in Dublin to British parents, Bacon began his artistry in the late Twenties. By the Forties, with paintings such as *Three Studies for Figures at the Base of a Crucifixion*, a 1944 triptych featuring odd, grotesquely shaped creatures, he had become notorious for a bold and brutal figurative style. In 1964, George Dyer attempted to break into Bacon's house, but the burglary was thwarted when he fell through the artist's studio skylight; Dyer did meet Bacon, however, and a relationship ensued. Bacon eventually painted a series of Dyer portraits, and it was these canvasses in particular which intrigued Maybury. Rather than making a traditional biographical film of Bacon's life, Maybury chose to focus on the seven-year relationship between the two men, and its tragic end.

"There isn't any real need for a documentary biopic on Francis Bacon," Maybury contends. "Many already exist. Similarly, there are biographies and monographs with great essays by brilliant writers, so the information is all there. What interested me, and the reason I honed in

Photos courtesy of Strand Releasing.



on this period, is that the portraits of George Dyer are my favorite paintings, and the [other canvasses] made during that period are among my favorites from Bacon's body of work. Beyond that, there is the subject of the artist and his muse. [That theme] is as old as the hills, but in this particular instance there is an interesting dynamic in the sexual relationship that's evident in the paintings."

Maybury's lead actors — Derek Jacobi as Bacon and Daniel Craig as George Dyer — both bear a striking resemblance to their real-life counterparts, and both give excellent

performances, capturing the nuances of the power which is traded back and forth in the relationship. The film also stars Tilda Swinton, Anne Lambton, Adrian Scarborough, Karl Johnson, and Annabel Brooks as various figures from Bacon's life.

While Maybury may describe the story's shape as conventional, the picture's visual style is anything but. Maybury, cinematographer John Mathieson, and production designer Alan Macdonald spent a great deal of time working out the look they wanted to achieve, and the trio story-boarded the entire film.

Macdonald has designed all of Maybury's films to date, and the director met Mathieson some 15 years ago, while both were working in various capacities on projects by the late avant-garde filmmaker Derek Jarman (whose 1986 picture *Caravaggio* offers compositions inspired by the Renaissance painter's work, photographed by cinematographer Gabriel Beristain, BSC). For Maybury, there were certain restrictions which had to be addressed before he even began to consider the project. "First and foremost, there were two criteria that dictated certain approaches," offers the cameraman. "Number one was the very low budget, which immediately suggested to me that a more unorthodox approach was going to be necessary to take the budget to the places we needed to go. The other obvious thing was that it's a film about a

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Opposite page: Impressionistic imagery inspired by the art of Francis Bacon, as shot by British cameraman John Mathieson for *Love is the Devil*. Left: Bacon (Derek Jacobi) shares a quiet moment with muse and lover George Dyer (Daniel Craig). Below: A pensive Bacon takes stock of his artistry amidst a collection of canvasses.



The film begins as Bacon returns home to London from the triumphant 1971 opening of a major show at the Galeries Nationales du Grand Palais in Paris. When the artist arrives, he slips his key into a lock in a close-up image drawn from Bacon's 1971 painting *Triptych*, whose center panel presents a figure resembling Dyer turning a key in similar fashion. From here, Maybury, who references many of Bacon's paintings throughout the film, patterns the story almost in reverse; indeed, a voice-over mentions the "shards of memory" that are left, and the ensuing narrative is like a bomb exploding in reverse. The audience is transported back to the beginning of the relationship, and watches as Dyer disintegrates, falling victim to the nightmarish world Bacon renders in





# Brush With the Gutter

Right: Bacon consoles a depressed Dyer, who crouches over on a makeshift toilet. Maybury notes that most of *Love Is the Devil* was shot on sets in order to lend the film a claustrophobic, cold look similar in style to the artist's paintings.



visual artist. In making a film about such an artist, your first responsibility is to make a really visual film. To me, the failure of a lot of films that are made about visual artists is that they tend to concentrate on the extravagances and excesses of the characters, often at the expense of the images depicting the work." Maybury countered this pitfall by looking to the paintings themselves. "The paintings are almost telling you what to do," he says. "They present this very claustrophobic, modernish environment — quite clean and quite cold in a sense, but there's also this frenzy and energy within the figures."

To help keep things under control during the 6½-week production, Maybury opted to shoot almost all of the film on sets. "They were beautifully made," he says. "All of the walls could fly out with incredible ease, and anything could move if we needed to change angles." When the production did go on location, Maybury was careful not to abandon the restraint he had exercised on the

sets. "The agenda that I set for John when we were shooting on location was to make that footage look more like the sets than the sets themselves did," he explicates. "It's a problem, especially with low-budget English cinema, when there's this restraint [that's suddenly lost] when filmmakers go out to locations, where things open up in this absurd way — it's almost gratuitous. Instead, we kept closing the thing down, trying to keep that claustrophobia and intensity. The only scene where that isn't the case is Bacon's vision of a car crash involving a nuclear family in their bright, primary-colored outfits, sprawled on the ground with the blood sparkling through star filters."

This particular accident image is almost an homage to Jean-Luc Godard, and indeed, Bacon often painted from photographs or film stills. He was interested in the work of Eadweard Muybridge, for example, and used several of Muybridge's motion studies in his own work. He also referenced the famous shot of the nurse with the bleeding eye from

Sergei Eisenstein's *Battleship Potemkin* (1925) in several of his paintings from 1949. Perhaps one of the biggest influences on Bacon's work was John Deakin, a photographer known for his dark and macabre portraits, which tend to emphasize the ugliness in even the most beautiful of subjects. "Deakin was a very short man," relates Maybury, "and he often used a box camera often on a tripod. Because he was so short, he had a tendency to shoot up at people; as a result, the pictures have a very unflattering quality. Even the fashion work that he did for *Vogue* has this extraordinary nastiness to it because [that upward angle] is very rarely used to shoot people." Bacon would often ask Deakin to shoot particular subjects; the artist then painted from the resulting images.

The other "pointer" that influenced Maybury, Mathieson, and Macdonald was color. "Very early on we decided to restrict the color palette of the film, in much the same way that Bacon does in his paintings," says Maybury. "There's a





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# Brush With the Gutter



**Above:** A drunken Dyer takes a toke as he considers his tumultuous professional and personal affair with Bacon. **Right:** A surreal view of a model striking a pose.

Mathieson often distorted his images, much in the way that Bacon elongated the scenes depicted on his canvasses.

predominance in the film of the green hue from the Colony Room [a pub where Bacon and his cohorts would often go to drink], but there's also a tendency in the film toward bone or flesh colors, dark reds, and the dreadful sallow color of the nicotine-stained, alcohol-sodden, sun-deprived English skin."

Working from these general visual strategies, the filmmakers got to work. Mathieson used an Arriflex 535 for most of the film, and the smaller 435 for more difficult shots. He shot on Kodak Vision 200T 5274 stock, and used the Vision 500T 5279 for nighttime scenes. This, however, is where the conventional discussion ends; for much of the production, Mathieson tried to toy with his equipment and lights in order to alter or distort the images he was getting — much in the manner that Bacon warped and stretched his own imagery. His description of techniques is a tour through the don'ts of filmmaking, and yet the results are extraordinary.

Mathieson shot some scenes using a 5x4 Sinar plate camera, which he would place in front of the Arri without its plate. Where the plate would normally go, he positioned a piece of tracing paper. "The image would be soft, sort of blurred," he attests, and this effect not only framed the subject like a still camera would, but made images that approximated the blurriness of many of Bacon's paintings.

Another technique involved removing the shutter from the Arri 435. "We disconnected the shutter, keeping it open," Mathieson discloses. "Then we'd use a domestic drill with a handmade shutter in front of the camera. It would run asynchronously, and we'd rev it at different speeds to make the image flutter. If you moved it away from the camera, you'd get these great flash-frames that would stretch and tear from top to bottom, creating images that jumped at you."

Mathieson continues, "We did our own fogging in the camera as well, using the Arri VariCon, which enables one to fog the film using different colors. We also tried putting red gel on the side of the camera, then opening up while we were shooting to make a more 'brutal' fogging effect." According to Mathieson, the technique was popular in the Seventies, but has pretty much been abandoned since then.

Mathieson also did a lot of double exposures in the camera. One of the film's final scenes shows Bacon in a bathroom, where Dyer appears as a ghostlike presence. Similar images abound throughout the film, and while budget may have been one of the reasons for doing this and many of the other effects in the camera, Mathieson and Maybury felt that the old-fashioned technique lent the film a certain ambiance. "When you double-expose [a shot], there's something about the way it sits on the negative, with the light passing through and hitting the emulsion —

it just sits better than if you mix it or do CGI to it," says Mathieson. "It's also a lot more fun, and you can relight things for different exposures or use different colors. Anyway, John would get so excited about the rushes — you'd see the shot right away."

Yet another approach utilized to distort images was to shoot through large chunks of glass. "I've been dragging bits of glass around for years," concedes the cameraman. "Alan [Macdonald] would find these lovely pieces of glass to shoot through." Some of the glass pieces were old, heavy ashtrays, but all were simply held in front of the camera for the shot. Mathieson also used an assortment of old lenses. "We had this odd collection," he says. "We had an old Angenieux, for example, which we did terrible things to with Vaseline. We also took the elements out of some of the lenses, and we also used a Frazier lens once. With the Frazier you have to use the Panavision camera, but the lens system has its own peculiar kind of optics. It does extreme close-ups."

Mathieson also used a boroscope lens for close-ups. "The optical quality of a boroscope is terrible, really," he opines, "but what you can



do with them is amazing. They are very good for doing close-ups of things like white mice building nests — they're used by natural history people for studying nature. But we used them for snooping around and looking at bad skin or stained fingers." The boroscope is unusual in



that it can both do close-ups and wide-angle shots; the image is distorted at either setting, and Mathieson used this warping effect to lend a repulsive quality to the faces of the people who hung around Bacon, making them appear as they would have had they been rendered by the artist on canvas.

The cinematographer also employed an array of gels to augment his subjects' more hideous qualities. "We got that Bacon dead-flesh look using old gels," he reveals. "They were strange correction gels for lamps that people don't use anymore. They have very weird colors, and most have been discontinued. We also used a lot of cosmetic gels, but in a very uncosmetic way. There's an LCT Yellow, for example, which is a weird, horrible color that makes everyone look ill or dead. Usually when you put a gel in front of a light, it looks very intense and strong, and we didn't want that. We wanted something more subtle, something dirty, and we found that these old gels really gave us the desired waxy, dead-meat look."

One of the objects that appears frequently in Bacon's paintings is a bare lightbulb, such as the one which hung from his studio ceiling. Many of the shots in *Love Is the Devil* also include bare lightbulbs; according to Mathieson, the crew lit the film mainly with these customary household fixtures. "We really didn't have any big lights at all," he says. "Believe it or not, we principally used lightbulbs. We didn't want anything as big as a 10K. The film had to look... well, *wrong*. In some ways it would have been wrong to use certain tools or to do certain things that we knew how to do, or things that were easy. We had to try something else, and sometimes it was a matter of putting a lightbulb on a piece of wood and lighting the shot that way." Mathieson does concede to having used Chimeras on conventional lamps. "They're like little tents that you stick on the lights," he observes. "They're

black on one side and white on the other, so you get this kind of diffusion — we used those quite a bit. But we didn't use Kino Flos or any fixtures like that, because they were too smooth."

Mathieson had little idea if these effects would work or not, and he and Maybury could not rely on video assist to tell them whether or not the effect in question had been

successful. "In one instance, it was impossible for the video assist to be used when we disengaged the shutter. Double exposures and different frame rates were also pretty much unknown until we saw the rushes, because the video assist system that we were using was rudimentary."

"We just had to pray," continues the cameraman, who also notes that restrictions were placed on

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# Brush With the Gutter

footage consumption. "We weren't allowed to shoot more than 2,000 feet of film per day," he says, "and we didn't. With all of the various effects shots, we didn't have any room to screw up."

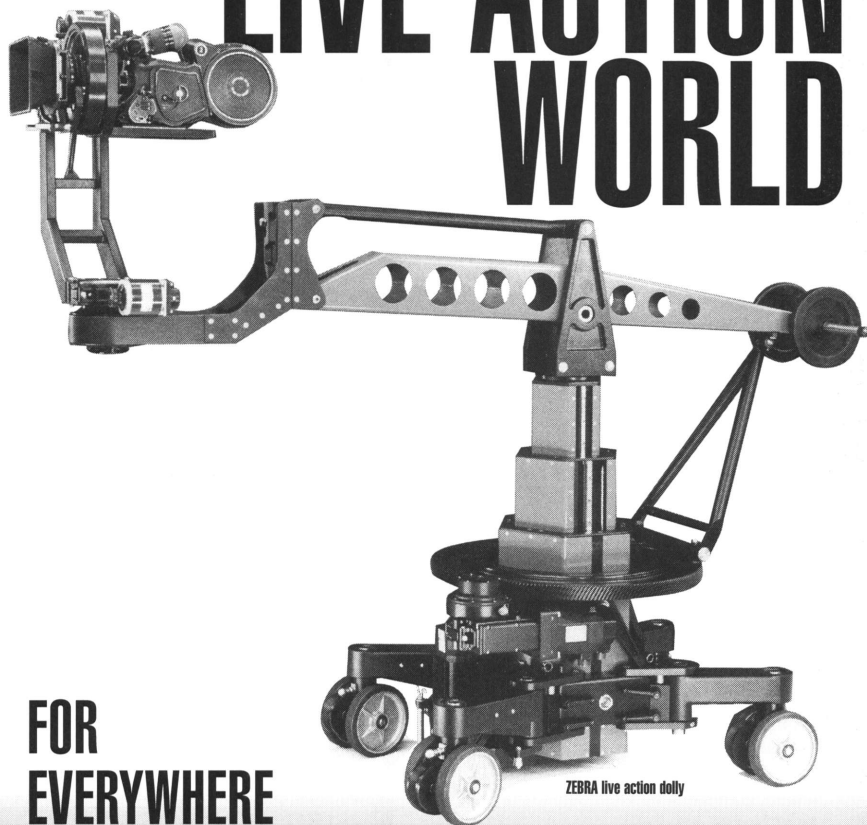
While most effects work was done during shooting, four such sequences came to fruition in postproduction. In one shot, for example, Bacon and Dyer walk by a shop

window at night; peering in at the display furniture, Dyer sees an image of a raw and bleeding man crouched on a cabinet. "That image was built by computer," elucidates Mathieson. Maybury initially imagined doing most of the film in this mode, but he shifted gradually towards a more cinematic aesthetic. "We made a very conscious decision to avoid too much electronic postproduction,"

divulges the director. "I very much wanted [the picture] to be filmic, even though it would have been very easy to slip into a kind of electronic panorama representing some of the triptychs by Bacon. But there was also the danger of slipping into [the style of] a dodgy Italian horror film."

One of the flashier postproduction effects starts off as a shot of George lying on the floor, and pulls upward until he is a dark spot at the center of a circle of light in an otherwise black frame. "We zoom out

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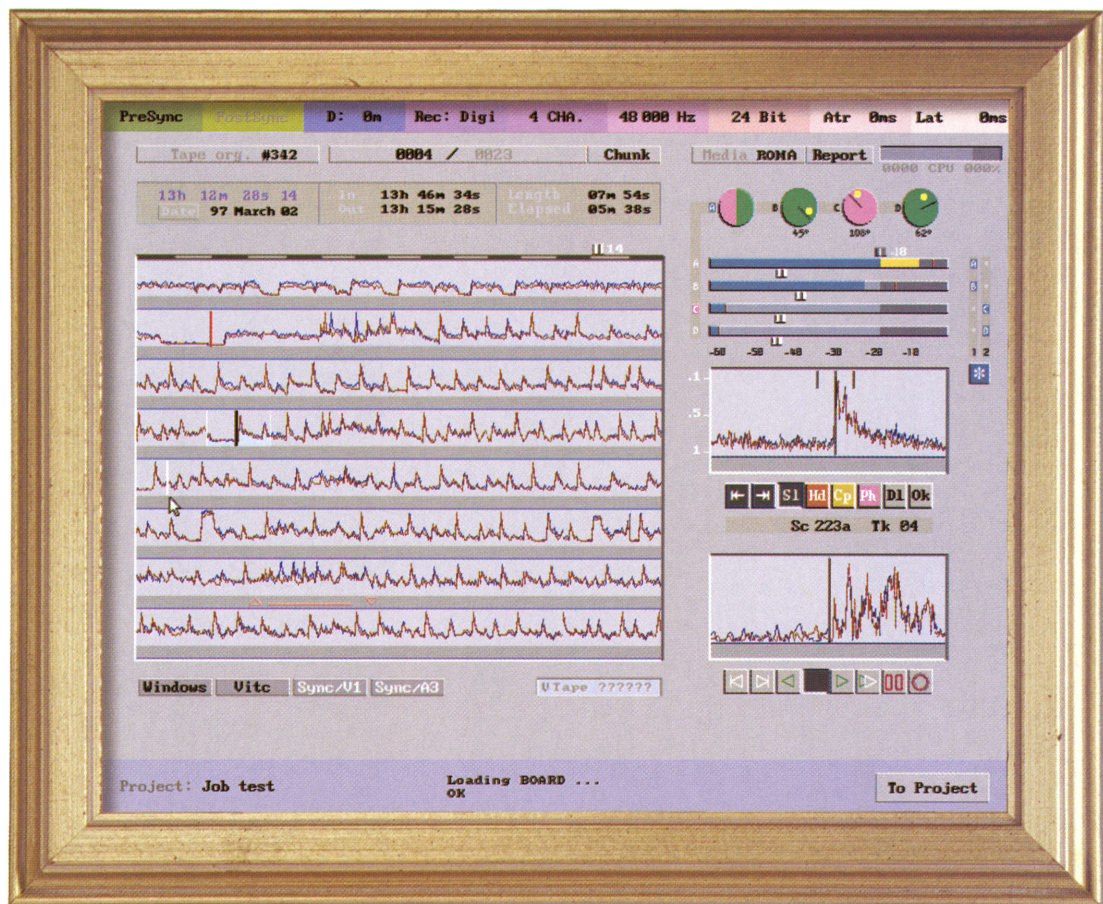
— Director of photography  
John Mathieson

from the studio floor," says Maybury. "We used a crane for the beginning of the shot. Then we picked up the end of the camera move and continued it electronically. The image is actually reduced to a dot, with George rolled in a fetal position in the middle of the screen."

Another stunning shot moves in the opposite direction, slowly creeping downward through the center of a spiral staircase. Explicates Mathieson, "There are two columns in London. One is Trafalgar Square, which everyone knows. The other, which isn't so well known, is called the Monument. It was built after the Great Fire [which engulfed London



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( audio page )

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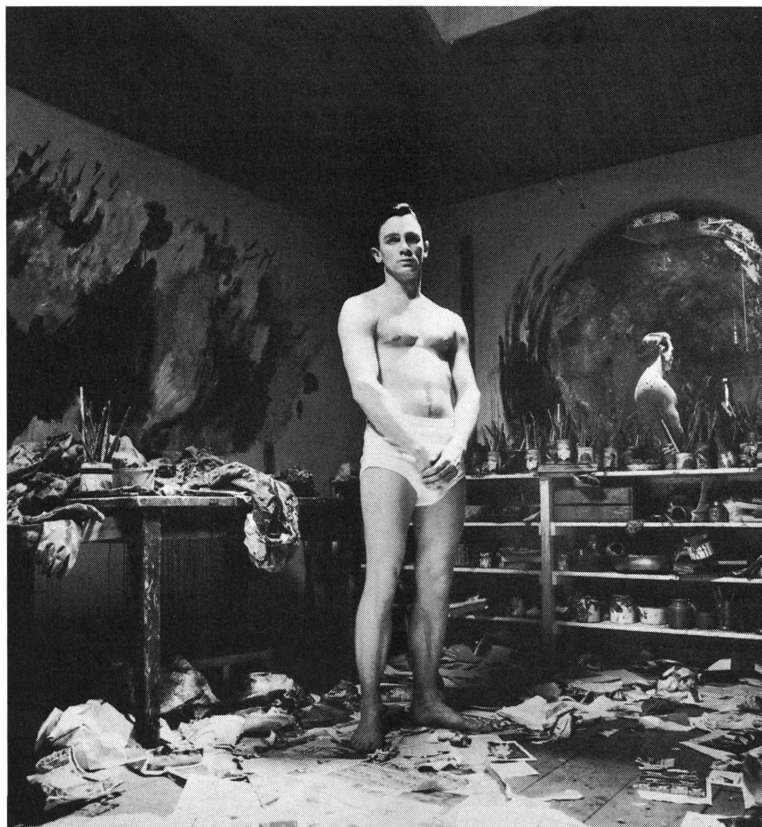


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Just before George Dyer takes his own life, Bacon's tortured muse makes one last stand within a hotel room displaying the aftereffects of a wicked, artistic thrashing.

in 1666], and it has this spiral staircase in the middle of it with an aperture that's only about 2½ feet across. To get the shot, we dragged an Arri 435 up to the top and put it on this atrocious video head that somebody stole from somewhere — it was the only thing that would fit in there. Employing the types of cables and pulleys that are used for flying or stage shows, we managed to drop the camera down the middle of the Monument without hitting the sides. There was one problem, though: the Monument leans to one side, so we had to give the camera a little push in the opposite direction. Of course, all of the counterweights had to hang outside down the Monument, so the only time we could do the shot was in the middle of the night. We had to drag all of this stuff up there — a huge array of pulleys and weights — and get the camera in. We were exhausted."

Given the filmmakers' penchant for old-fashioned effects, all of the picture's driving shots were attained on a set via rearscreen projection and video. "There's a shot of Dyer driving downtown, for example," says Mathieson. "He's covered with soft pools of light, and it just wouldn't have been possible to do that on the streets. Instead, we went out and shot backgrounds of out-of-focus lights on 16mm, and then transferred them to tape. That way, we could muck around with them really quickly and cheaply, and then play with them on the video projector on the stage."

The results of this method are not necessarily realistic, but instead capture the energy and mood of the characters in each of the driving scenes. One particular scene exhibits Mathieson pulling off a lovely shift from night to day when Bacon recollects the bright images of a car crash.



"They're traveling at night," he recounts, "and then the scene switches to daylight and the car accident. We did the accident by filming a fence at nighttime, turning it to negative, dissolving it with a real piece of film on location, and panning the camera at the same speed onto the victims lying in the road. It was seamless, but again, really simple. You turn something into negative on video with just the touch of the button, so we have the driving scene, the look out the window, the fence and then the pan around the daylight scene, and you don't even see the cut — even though it's a hard cut."

The film itself has minimal camera motion, but the images still possess a certain verve. "I'm not that interested in clever camera moves," admits Mathieson. "Quite often the camera is static, because that immediately creates a kind of tableau which subliminally suggests the paintings; most of the movement and energy comes from the characters within that tableau. But while John doesn't like fancy camera moves, we did manage to bring a vitality to the camerawork, via different angles and a kind of perverse fun that we all were party to."

That sense of "perverse fun" is what gives *Love Is the Devil* its unique character. The film is a bold dismissal of the tried-and-true cinematographic techniques about striving for attractive imagery. According to Mathieson, at one point actor Derek Jacobi said to Maybury, "This isn't a very pretty film, is it Johnny?" But while this picture is indifferent to physical allure or sumptuous photography, it's also obsessed, as Bacon was, with another kind of intensity. As one critic has written in reference to Deakin's work, one wouldn't want to borrow the grooming habits of any of these characters, but *Love Is the Devil* still approaches the sublime. ■

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# Height of Fashion

Cinematographer Curtis Clark, ASC teams with renowned still photographer Sheila Metzner to bring a spontaneous style to Ralph Lauren's latest ad campaign.

by Ron Magid

**T**hough the differences between still photography and cinematography are profound, both depend on skillful composition and the rendering of light and shadow to produce a lingering impression with the viewer. Still photography is a very personal medium in which a talented individual can largely create and control the working environment. Shooting in the motion picture realm, on the other hand, virtually demands an army of technicians before, during and after production. It's rare for the masters of both disciplines to team up, but when they do, the results can be spectacular.

The psychic journey leading up to the collaboration can be nerve-racking, though, especially when the famed photographer is directing the project. Cinematographers can find themselves at odds with individuals whose standing in the print medium equals or exceeds their own standing in the motion picture business.

That possibility concerned

cinematographer Curtis Clark, ASC when premier fashion photographer Sheila Metzner asked him to shoot a Ralph Lauren commercial that she was slated to direct. The commercial's concept was unusually loose for such a high-profile project. The spot was structured around Tanga, a striking Ralph Lauren model; as the French beauty is engaged in a fashion photo shoot, showing off the very best Lauren has to offer to its very best advantage, a question arises: who is this beautiful woman we're looking at? Soon, a story emerges. Juxtaposed against the startling black-and-white and color imagery of the shoot itself is an aural collage of music and the disembodied voices of people discussing the model, as well as snippets in which Tanga talks about herself.

This was a challenging project that demanded the best of both the still-photo and cinematography arenas. Fortunately, rather than finding themselves at loggerheads, the two artists involved clicked and complemented each other. Metzner's

TANGA

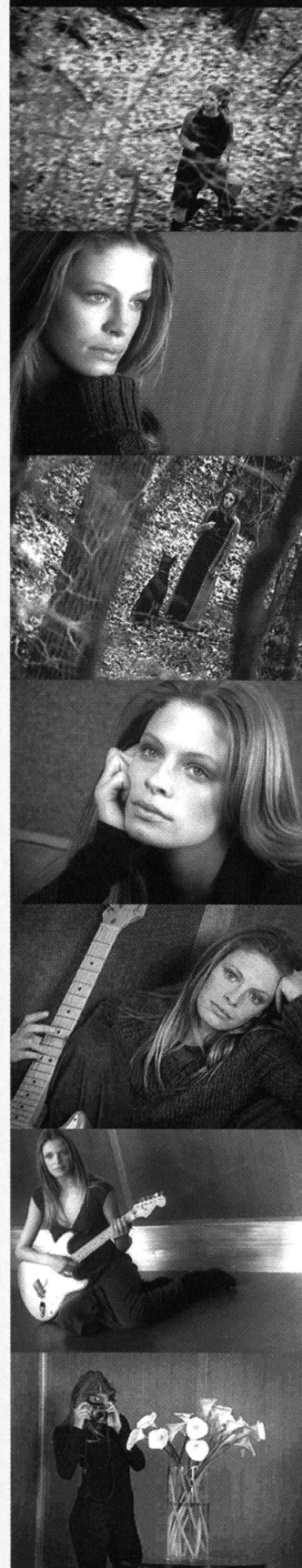




photo shoot and Clark's pseudo-verité documentation of the session melded to create both a highly unusual six-minute film and an innovative TV commercial. "In a sense, we were doing a movie version of a still shoot," Clark explains. "I went into this project with a certain degree of trepidation, because Sheila has her own rather formidable background and reputation in the very area where I was about to tread."

Of course, Clark has an impressive background and reputation of his own, initially encompassing documentaries and features, but later extending to high-end commercial work. "Although I'm an American, I spent half my life in England because I went to film school and started my career there," Clark says. "To put things in perspective, I didn't have a Social Security card until 1984! I started my career in Britain in documentaries and began my feature career by shooting *The Draughtsman's Contract* for Peter Greenaway. After shooting some other films there, I came to the States and shot *Alamo Bay*, Louis Malle's last U.S.-based picture. I then began working with Robert Young, and we did several films together, including *Extremities*, *Dominick and Eugene* and *Triumph of the Spirit*. I only started doing commercials about five or six years ago."

Clark's varied background, from documentary realism to his very formal work with Peter Greenaway, meshed well with Metzner's vision and completely supported her approach to the commercial. And since Clark came from the feature rather than the commercial production realm, he had a healthy suspicion of the process and a willingness to experiment with the form. Nevertheless, the potential downside was that Clark would assume the role of "hired hand" instead of becoming Metzner's collaborator in the unique project. An initial meeting between Metzner and Clark quickly dispelled that notion. "I was just amazed that

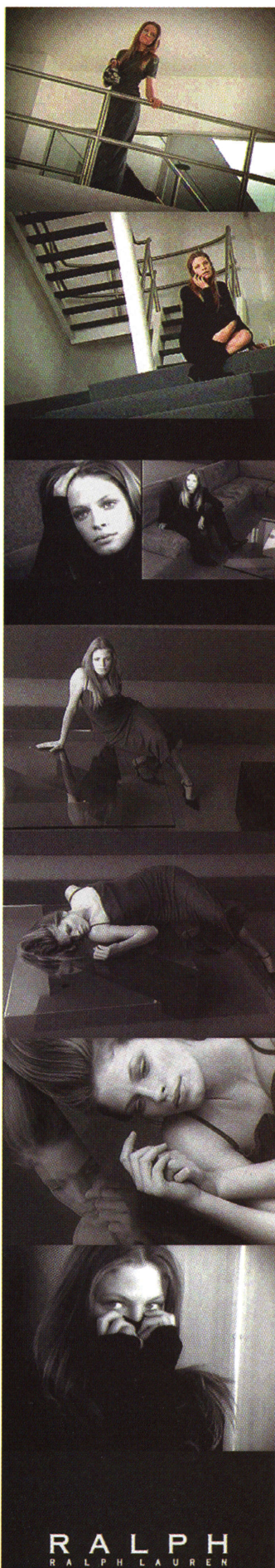
she's such a collaborative type of individual," Clark says. "I sensed it on the day we got together just prior to shooting to talk about things. She wanted to show me a short, private film she had made about five years ago as an homage to Man Ray, a photographer she has tremendous admiration for. She actually had done something that was not dissimilar to what we ended up doing on the Ralph Lauren spot: replicating several well-known Man Ray photographs filmically, without dialogue or narrative, by creating very personal [interpretations of] his works. It was a fascinating and very compelling film which I really liked."

"I also admire Man Ray's work tremendously, so that was another common denominator between us. The idea of motion picture film and stills coming together was the motif that sparked our collaboration. We knew from that moment that we were really tuned into the same way of thinking, and the frequencies got really synchronized on a common wavelength."

What emerged from that early meeting was a feeling of how to create a commercial that played like an extension of Metzner's print magazine ad campaign work. Clark explains, "Sheila's print work is a fantastically innovative use of various technologies, including printing processes and the use of negative. She uses Pola-Pan negative, which is a black-and-white reversal film, for her print work. That, to me, is unusual; it's not a standard negative to use. She's very aware of photography's painterly qualities. Aside from capturing a moment, she art-directs the piece so that she evokes an atmosphere and sets up the elements and circumstances that will produce the results she's looking for."

Clark's challenge was to replicate that style in his cinematography — on a short schedule. After traveling to New York to work with Metzner, he was in the city for a total of five days. Following the duo's

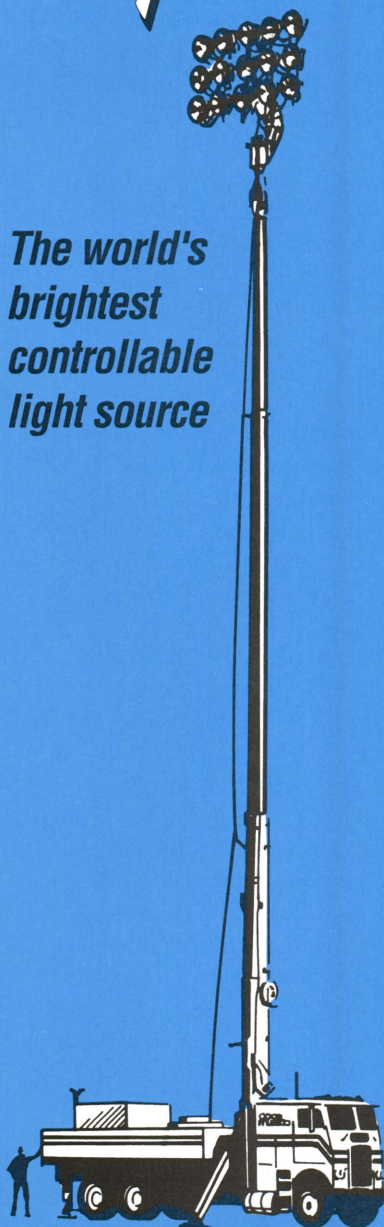
Clark and Metzner used a combination of motion picture and still photography techniques to capture the enigmatic charms of supermodel Tanga.





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initial meeting, Clark spent the next two days doing the traditional tech scout and prep. He and his crew then visited Metzner's actual still shoot and documented it with a handheld 16mm Aaton and some Plus-X black-and-white stock. "It was partly happenstance that things worked out that way," he admits. "I wasn't documenting the shoot in the journalistic sense of 'This is a story about doing it.' Instead, what we shot became an echo, almost a motion picture reprise of her still shoot. We didn't quite know how much good footage we'd get or how valuable it would be. It was almost like an extended prep. As she did her solo still session, I sometimes reprised the things I saw her doing. At other times, we would shoot still and motion picture film together, as if we were performing a duet. We weren't sure exactly what would happen or how effective it would be. But all of a sudden, Sheila and I started making things happen, and we became very energized by it. It gave definition to what we were trying to do, and real substance to everything we had discussed. We didn't need to talk anymore about how we wanted to do it or what we wanted to accomplish — we were just doing it."

The two settings, like Lauren's clothing, were starkly and simply rendered Clark recalls, "One was an abstract, stylized set which consisted of a perforated steel wall which reflected the light sources. The other was an actual living room interior in a very modern, contemporary house that was totally monochromatic. It sparsely furnished, with white walls, railings and angular architectural features that gave it a geometric, almost cubist look. There was nothing colorful on the set — even the sofas were gray."

Rolling his 16mm black-and-white film while Metzner shot her modeling session, Clark felt like a jazz musician playing a variation on Metzner's theme: "It's almost as if

there was a general notion of the score that was laid down. We started out with a certain riff, something we thought was right, and then I came up with solo reprises of Sheila's melody. In a sense, I was trying to do animated versions of her stills, but sometimes with a slight variation on the theme to create an interrelationship between her stills and what I was shooting."

In order to be as unobtrusive as possible, Clark was determined to use Metzner's existing still-shoot lighting almost exclusively, despite the fact that his chosen stock was not particularly fast. "Even though it's a slower stock, I shot Plus-X because of its rich suppleness," Clark says. "Fortunately, Sheila never likes to work with flash or strobe lights; she works with continuous light sources so she can see and feel the lighting. The beauty of it was that she was using these new, innovative German-made HMI soft lights by Briesse, so I had enough exposure to be able to use Plus-X. I had never seen these lights before; they're cone-shaped and fold up like an umbrella. Sheila's the only person I know who has them, so I was actually having a tremendous amount of fun experimenting with new light sources. I was delighted to work that way, because these soft HMIs were really quite sensational. I never would have thought of using them since they're 'still lights.' But that's why I was able to tune into her frequency: I could see exactly what she was trying to do. It was a very interesting way for us to collaborate."

The duo's approach was also impossible to script. Amazingly, no one from the ad agency or the client side tried to exert any control over Metzner and Clark's improvisational approach to the commercial. This creative freedom came as a relief to the filmmakers, since any scripting might have destroyed their unique rapport. "The lesson here was to bring spontaneity back into tradi-



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tional film work," Clark states. "There's something about the process of discovery that happens on-set that is priceless. That's not the way we normally structure film shoots, which tend to be more formal, but we carried that spontaneous way of working over into the proper, 'film-shoot' side of the commercial. The agency and the client loved it and went along with it, which is not typical on film or commercial projects.

"The way we worked reminded me of some of the experiences I've had on documentaries, where I had to respond quickly to subjects and just capture various moments," Clark continues. "In a sense, that's a metaphor for what happens on still shoots, because a great still is a captured moment. The challenge of this commercial was capturing these still moments, translating them into so many moving frames per second and creating an

afterimage that would linger and synergize with other elements that existed within the film. That's what makes great filmmaking."

Working on the shoot also reminded Clark of the free-form filmmaking style that director Jean-Luc Godard and cinematographer Raoul Coutard brought to *Breathless*, one of Clark's favorite films. "Godard was notorious for not scripting scenes, and people used to think, 'How the heck can he make such great films with no script?' In a way, this project was a very dramatic reminder that such things are possible if everything is orchestrated by people with an understanding of the process, which in this case was very fluid and very interactive. *Breathless* is structured from juxtaposed jump-cut moments of observation which take you out of the story but into other, very special moments that are almost transcendental. I'm not trying to make too strong a parallel between

*Breathless* and this commercial, but it was exciting to echo that style."

On the second day of the Ralph Lauren shoot, the filmmakers set up at the same locations, with the same model and the same clothes. However, the demands of the session now revolved more around Clark's needs than Metzner's, and this time the images were recorded entirely on 35mm color stock. "We flip-flopped our priorities," Clark explains. "On day one, the agenda was achieving a certain number of stills for the tie-in magazine campaign. The second day was all about doing the commercial, so any stills that were taken were incidental."

Clark utilized a Platinum Panaflex camera and Kodak's 5246 Vision 250D color stock on the second day, and opted not to alter Metzner's lighting. "It seemed inappropriate to deviate from what we'd found very successful and effective on day one," he submits. "The 5246

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daylight-balanced color neg, which I use quite frequently, has a 250 ASA versus the 80 ASA of Plus-X, so I actually had far more stop to deal with in color than I did in black-and-white. I actually had several HMI film lights to supplement Sheila's lighting if I wanted, and in some cases I did add a couple of film lights for a marginal kind of punctuation. The nature of the subject matter we were dealing with in the color footage required it."

Because both the setting and the clothes were virtually monochromatic, the first thing that leapt out from the juxtaposition of these two elements was Tanga's Caucasian skin coloring. "The clothes themselves are interestingly rendered both in color and black-and-white," Clark observes. "The clothing was very monochromatic in tone, with hints of umber or beige and a lot of grays and blacks as well. That made things very interesting when we used color versus black-

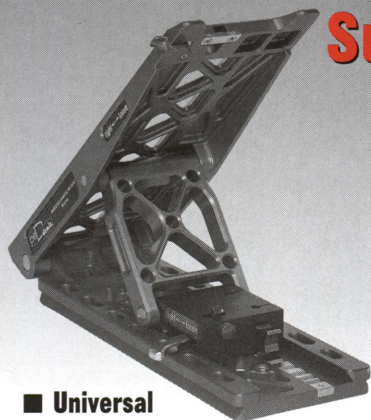
and-white."

Another difference between the black-and-white and color shoots was the visual style employed on each segment. "The 16mm shoot was all done handheld, while the 35mm color session was a bit more formalized," Clark remarks. "The black-and-white shoot was not designed to appear handheld; it was done handheld because that was the most efficient and effective way to get the images. The black-and-white footage had this observational, free-wheeling, 'found moments' feel, but we were a little more structured in terms of how we approached the same elements in color. On the second day, we were in a much more conventional mode; we used dollies to do some tracking shots, and we had a more conventional setup with the usual paraphernalia. We designed those shots with Sheila to interrelate and build on what we had done on the first day. Any noticeable differ-

ence in the type of equipment we used doesn't come across that way — hopefully, no one watching the spot will be able to discern what's handheld and what isn't. It would have been a resounding failure if you could look at the shots and tell which is which."

This topic prompts Clark to make a final Godardian observation: use the tools that are available to make the best shots you can. He notes, "In *Breathless*, they used a wheelchair to get one shot — not because they wanted to make some fetishistic virtue of it, but because it was what they had available. Nobody thinks, 'Gosh, they used a wheelchair.' The lesson for me on this project has been that we should not get hung up on any assumptions of how to achieve a shot. There might be more interesting ways of achieving the shot if you're open to it. Maybe there's nothing wrong with using a wheelchair after all." ■

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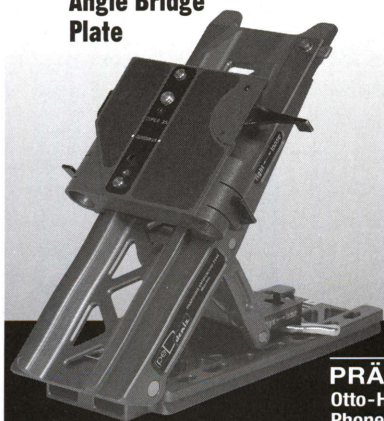
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Director of photography Rolf Kestermann approaches his work on commercials and music videos with the eye of a painter — which is what Kestermann once studied to be. Director Paula Walker, Kestermann's wife and longtime collaborator, says of him, "He somehow

Center College of Design. Though the cinematographer has worked with directors such as Herb Ritts and John Landis, most of his projects have been collaborations with Walker. They met shortly after both had finished school in the early Eighties, while working on *In Search Of*, a television show about para-

dancer before turning to theater and film at the University of Michigan — the couple found that they had much in common. "We shared the same sensibilities," says Walker. "I came from a movement background, and he came from a painter's background. I think it was a good partnership, because we'd

# Rhythmic Images

Cinematographer  
Rolf Kestermann teams  
with director (and spouse)  
Paula Walker to create  
dynamic commercials  
and music videos.

by Stephanie Argy



goes for the jugular in the way he frames or composes a shot. He has this way of creating movement in everything he does. He never stops trying to make it better, or trying to make it flow, or trying to make it interesting."

Born in Germany, Kestermann grew up in Zurich, Switzerland. After studying painting in Paris at the Ecole des Beaux Arts and then at a private French studio, he moved to Los Angeles to earn a film degree from Pasadena's Art

normal phenomena. On this program, Kestermann was a camera assistant; Walker worked in production, taking the film from him to the lab. One day, the show's makers were "staging a hanging," Walker remembers of the pair's first meeting. "We both felt as if it was being covered from the wrong angle, and we started talking." Their conversation has been going on ever since.

Despite the duo's different backgrounds — Walker was reared in Los Angeles and trained as a

both been trained in the arts."

The pair began their joint career by doing music videos for recording artists such as Tina Turner, Lou Reed and Chris Isaak. (Kestermann earned an MTV Award for Best Cinematography for the striking black-and-white visuals he lent to Isaak's popular, oft-aired "Wicked Game" video, which was directed by Herb Ritts). In 1986, they founded Strato Films, which is now primarily involved in commercials for companies such as Nestle,



Kodak, AT&T and the German National Railroad.

After storyboarding their spots, Kestermann and Walker divide up the work. "I deal with the art department," he says. "She works with the cast and the styling and makeup." On a recent Gallate spot, for example, "Paula would fly to Paris and do casting, and I would fly to Rome and scout locations."

Real settings are an important component of Kestermann's style. "Many of the shoots are location-based," he says. "It's about being at

to HMIs, preferring them over tungsten lamps on about 80 percent of his jobs because of their efficiency, effectiveness and punchiness. "I even like the flicker — the light has a certain nervousness," he says. He further enhances the energy of his shots with moving lights, often shining them through some kind of atmospheric disturbance, such as rain or smoke. When he wants a warmer look, however, Kestermann does use tungsten fixtures. "If something has to be extremely elegant and relaxed, I use tungsten light. On some jobs, I light

used here is more limited [as opposed to in Europe]."

As a director and onetime dancer, Walker finds Kestermann's work to be quite rhythmic. In fact, when a sequence is being shot MOS, Kestermann likes to have music playing — both for his own benefit and to set a mood for the actors.

Kestermann avoids mixing film stocks, and his choice of emulsions varies by job. "Lately, I've been using [Eastman Kodak's] 5293," he says, along with 5245 for daylight work, and Vision 500 for night



the right place at the right time — finding your location and biting your nails, hoping you'll get it."

On location, Kestermann tries to take advantage of existing light conditions as much as possible, often structuring his day around the path and angle of the sun. On the Gallate spot, he found Rome particularly conducive to the look of the commercial, as the city itself added a distinct flavor to the illumination. He recalls, "We shot everything with existing light, even the interiors. We basically always used the sunlight. I put tracing paper up [on the windows] for diffusion. It's really the color of the buildings in Rome — ochres, reds. The way the light gets bumped back from the buildings as fill is really great."

When he does use artificial lighting, Kestermann allows the nature of the material to help him select his sources. He generally turns

only with Kino Flos. They're really beautiful lights."

Much of Kestermann's imagery involves beauty lighting. He focuses on actors' faces in particular, often using two front lights — one positioned directly above the camera, and another directly below it — while stopping down on the face. "If I don't use backlight, then I may make the front light just a little brighter," he says. "Other than that, I like to concentrate on lighting the lips and eyes."

To jolt the viewer, Kestermann often utilizes opposing colors in the same frame. "He was the first person who got me thinking about complimentary contrasts," says Walker. "I'm always interested in the emotional reaction to color. Rolf uses color very much for an effect — he's very into controlling colors via the art department. It's something that's not very American; I think the color palette



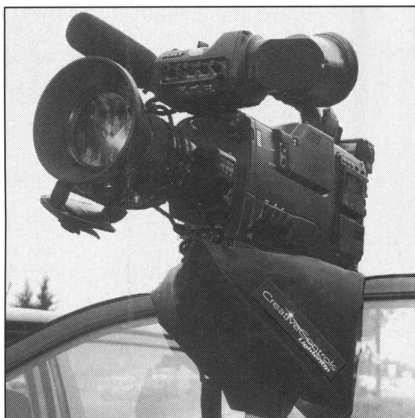
shoots. "It depends on what's needed. The films stocks are very good when you're going to television; it's only when you push them that you may see grain." He adds, however, that as long as he stays within one stop of normal exposure, grain is never a problem. As far as filtration is concerned, Kestermann uses some diffusion, but little else, aside from a polarizer and the occasional neutral density filter for outdoor work.

Kestermann does try to mix up his camera movement, alternating between locked-down, handheld and dolly shots. Recently, he has also utilized Filmotechnic's three-axis Flight Head. "It has a gyroscope built into the pivot points. The way it's hung, it's not too rigid," he explains, adding that with other heads, if the crane is slightly crooked, the head may not be level. "The way this one hangs, it's always level."

Partly because of his fondness for to shoot handheld, Kestermann often employs an Arriflex 435 camera. "I use Arriflex probably 90 percent of the time," he says. "I really like shooting with the 435. I always

**Opposite page:** Actress Jamie Lee Curtis appears in a spot for Western Wireless created by the director/cinematographer team of Paula Walker and Rolf Kestermann. This page, far left: Behind the scenes with the creative collaborators, who are related off set as husband and wife. Near left: Clad as a kung-fu-fighting secret agent, Curtis beckons her would-be assailants. This kinetic cell phone commercial was shot in a ship-repair yard.



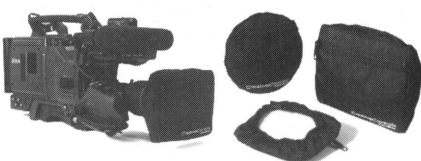


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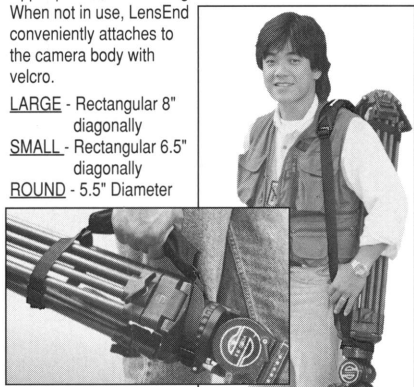
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# Rhythmic Images

want to do things handheld, and it's a lot easier with that camera. I'm left-eyed, and [because of the Arri's swingover viewfinder], for once I can look through the lens with that eye."

One recent series of commercials in particular called for intense camera movement. "We just did a Western Wireless [spot] with Jamie Lee Curtis," says Kestermann. "There was a lot of running with the camera." The spots feature Curtis as a secret agent fending off would-be assailants in a warehouse, while simultaneously chatting pleasantly on a cellular phone. "She makes the phone call as if this type of thing happens all the time," he says.

Filled with make-believe kung-fu fighting and ending in an explosion, the spots were shot in a ship repair yard. "We worked very much off the locations that we found," Kestermann says. Because of Curtis's limited availability, the commercials had to be shot quickly, in 53 setups executed over three days. Working so rapidly is possible for Kestermann partly because of the shorthand he has built up with his crew. He and Walker always collaborate with the same people, including gaffer Jordan Valenti, key grip Ken Jones and best boy Shawn Helgedalen.

Kestermann also has a long-standing fascination with gadgets and devices. Over the years, he has often experimented with new camera configurations. "I had some old cameras that I could take apart," he says, adding that Bell & Howells have been especially useful. On one camera, for example, he replaced the shutter, so that rather than a standard 180-degree opening, it had two 60-degree openings with a 60-degree space between them. "It's like adding a new shutter in between," he says. The altered camera exposed each frame twice, and the two images could be filtered separately. During a static shot, no difference would be

visible, but any movement during the exposure would cause a double-image effect to appear. On another camera, Kestermann repositioned the shutter, altering the exposure phase so that the film would be exposed while still partly in motion, creating a streaking effect.

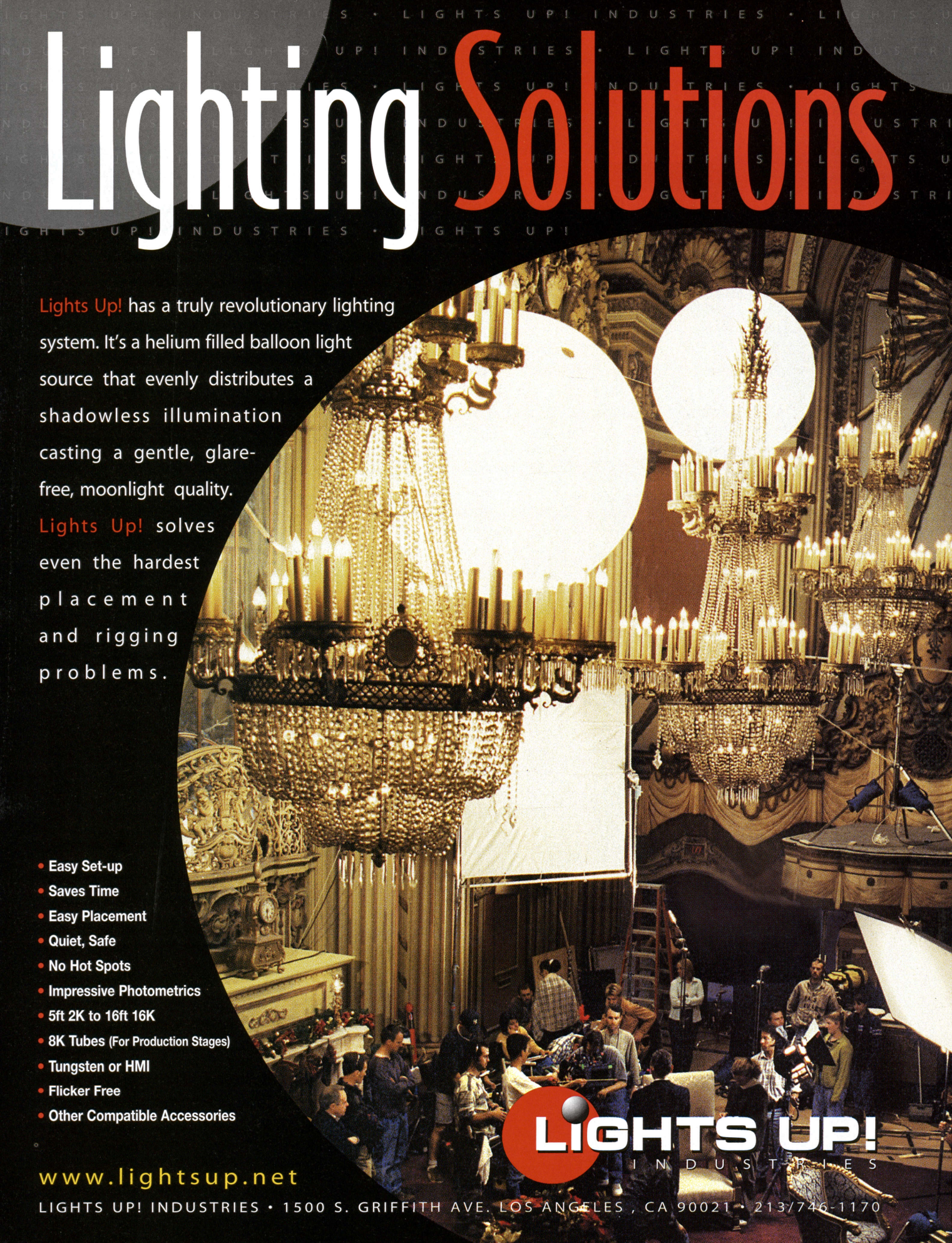
Another Kestermann "device" came into play on a spot he and Walker did for Flore perfume. After warping a Plexiglass disk with heat, he mounted the bent piece of plastic in front of the camera on a zoom motor, so that he could rotate it in front of the lens. On film, the effect generated radiating distortion which resembled heat waves. "It looks like very heavy Paint Box [post work], but it was actually done in-camera," he says.

Notes Walker, "The perfume spot for Flore is the kind of lighting that Rolf can do in a very interesting way — lighting that shimmers and moves. It has its own life force. It's never one source, and it always has depth. That makes it so much more complex and interesting."

Kestermann's fascination with mechanics led to him becoming deeply involved with computer-based postproduction. Two years ago, he and Walker bought a FAST Studio Quad editing system. Since then, they have acquired a Media 100xs editing system and an Avid 8000, and they also employ cutting-edge post software programs such as Commotion and Adobe After Effects.

Working with their own equipment has made the two more comfortable with postproduction technology, and has also taught them what is truly possible. "We are now better able to do some post things, because we understand them better," Kestermann says. On the Western Wireless spot with Jamie Lee Curtis, a climactic shot shows Curtis's character jumping out of a waterfront shack just as it explodes. "We split the





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## Rhythmic Images

picture in half and ran the jump a little earlier, so it would look really dangerous," he explains. "We knew that would be a possibility. It was a lockdown shot, so it was not very complicated."

On many of their assignments, the duo create composite elements in-house. "We may do the mask, we may do the artwork that goes in the back," says Kestermann. And though the final composite may be done on a Flame, he adds, "there's a lot of preliminary work we can do on the desktop."

For example, they recently took use of their system to pull mattes, create layers and do preliminary composites for a Wish perfume spot. The commercial featured a young woman walking on a tightrope in outer space. Kestermann and Walker initially photographed her against a blue-screen. Later, they were able to isolate the actress from the background and composite her with other elements that they had created. One of the layers — a nebula effect — had also been shot live, by bouncing Xenon lights off a rotating, warped, mirrored Plexiglass disk into a dark blue cyclorama. "One could probably animate basics like that, but for us, it's a lot quicker just to shoot it," says Kestermann.

The filmmakers did conceive other elements of the shot in the computer, however, including a star field (done in Photoshop) and a brilliant lens flare (crafted with an After Effects plug-in). All of the layers they created then moved easily into Flame, for its final compositing. In Flame, the duo also widened the commercial's final image, a beauty shot of the perfume bottle photographed on glass. "We took pictures of the original frame and extended it," explains Kestermann.

Digital technology's options for color manipulation also intrigue Kestermann. "I think the greatest thing is the possibility of color

correction," he says. "One of the great advantages of working in the digital media is that you have a lot more control over colors and contrast than you would in the printing process. Sometimes we do shift the colors, so that [the images] still seem natural, but also have a bold tonality."

Though Kestermann does much of his color-correction work in AfterEffects, he does have a few reservations about the program. "I wish the interface was a little easier to read," he submits. "It's hard to see what you're doing."

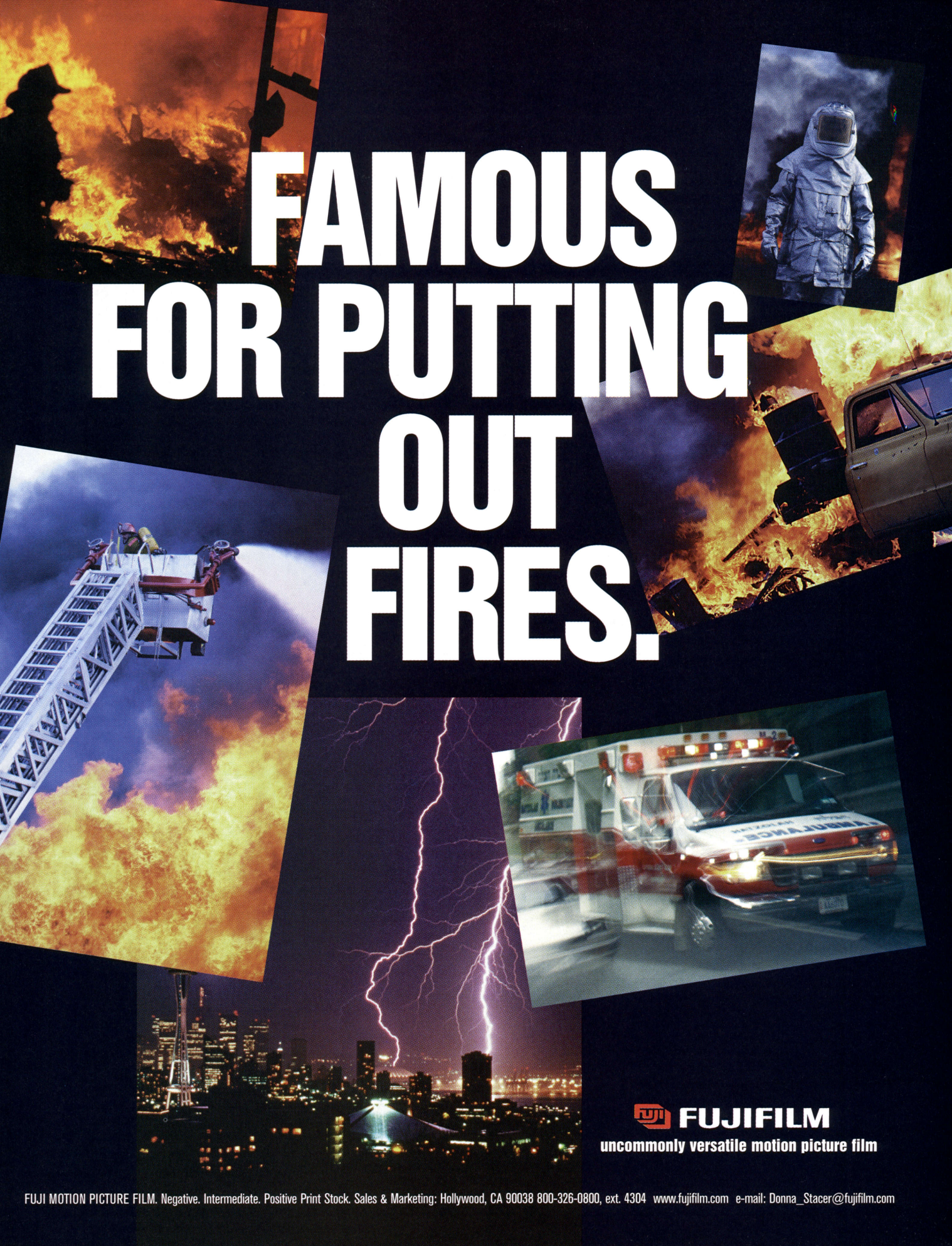
Kestermann and Walker's participation in postproduction illustrates an important difference between American and European productions. On stateside jobs, says Kestermann, he and Walker may be able to give references for colors, but they're often not permitted to remain onboard long enough to see the venture all the way through the post process. European production companies, on the other hand, not only encourage the pair to be more impressionistic, but also expect them to carry the project through to its completion. According to Kestermann, such spots, allow them to perform more complex layering and color work, again using AfterEffects.

The next step for Kestermann and Walker will be long-form projects. "We're trying to do more dramatic work," says Kestermann. This year, they plan to make their first feature film, *Chains*, which will be produced by Janet Yang; Kestermann recently made his directorial debut with a short film called *Air Time*.

"Rolf is one of the most intuitive people I know, as far as the way he works," says Walker. "He shoots in a way that makes things easy to cut. The most distinctive things about him are his mechanical ability, his artistic side, and his musical impulse. I always feel as if his shots are alive." ■



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**N**ot long ago, the postproduction tools and techniques for film and video existed in separate worlds — they were housed in different post houses and wielded by distinct artists. Times have changed. With the advent of digital technology, these high-tech methods are blurring boundaries, creating an arena in which output is less important than

are much less megabyte-intensive than film-resolution images, the advertising arena, with its imperative for new imagery, became the perfect playground for experimental digital technology, led by such pioneers as Robert Abel & Associates, among others.

Nowadays, more potent digital tools are commonplace in feature film postproduction, and techniques

“Volcano” trailer, which was shot in the Super 35 format by cinematographer Gary Waller and underwater cameraman Don King, is an experiential trip which begins under the ocean surface and flies the viewer over the water, through the jungle and into an active volcano.

“Volcano” had a complex and physically grueling production period. The initial sequence began in

# Crossing Over in Post

New, more sophisticated digital postproduction systems have allowed some filmmakers to adapt video methods for film work.

by Debra Kaufman

image. As computers have gained speed, and digital tools have acquired more strength and flexibility, digital technology has begun to migrate from video to film.

Rick Schulze, associate visual effects supervisor at Industrial Light & Magic, has observed that evolution. As a director/visual effects director of commercials (as well as an associate visual effects supervisor on *Jurassic Park: The Lost World*), Schulze has participated in the changes which began in the Eighties with Quantel's Paintbox. “It was a huge shift in the topography of how animation effects were created,” he remembers. “Optical effects shut down, and it all moved onto computers that were faster and more controllable. Those processes began in commercials.”

Since video-resolution images

such as digital compositing have virtually replaced photochemical film opticals. But the migration of techniques has continued, and some innovative filmmakers are seizing opportunities to apply video postproduction techniques to movie work. In the following pages, *AC* takes a look at two different examples of such recent advances.

## Transition to Digital Timing

Pavlov Productions director Barnaby Jackson was faced with an interesting challenge in creating the 75-second theatrical logo trailer “Volcano” to showcase the Sony Dynamic Digital Sound (SDDS) system in the 5,600 SDDS-equipped movie houses around the globe. (Other versions, titled “Quest,” “Jungle,” and “Underwater,” were later released in May of 1998.) The

the darkness of a lava tube and was photographed at 8 or 12 fps, through the dome port of a watertight housing with a wide-angle lens by Jackson and Waller, who were clad in scuba gear off the Kona coast of Hawaii's Big Island. To capture the next sequence, a helicopter equipped with a nose-mounted 10:1 zoom lens flew directly at the jungle terrain. To penetrate the wild undergrowth, Jackson relied on a Steadicam rig outfitted with a 10mm lens. Another helicopter shoot over the volcano captured the raging geological formation from afar, and a final CGI sequence created by Sony Pictures Imageworks allowed the filmmakers to plummet viewers into the hot lava of the volcanic core. “We wanted it to be real, not an effects piece,” explains Jackson. “What made it a challenge was that speed-



wise, each of the shots had to feel connected to the previous one, even though they were all done with different lenses, at different speeds, and with different object-to-camera relationships."

In creating the transitions necessary to "sell" the piece, Jackson turned to digital technology, which, in turn, led him to rely on techniques he had learned in commercial video postproduction. To accelerate the transition from the underwater work to the helicopter shot, for example, Jackson and artists at Planet Blue in Los Angeles utilized Discreet Logic's *Inferno* to speed up the footage and enhance it with splash effects and a manipulated horizon which generated the illusion of speed. "We could really slam the horizon down as if we were exiting the water at an incredible rate," explains Jackson. "The foreground splash objects helped to make it look as if we were breaking out of the water at 100 miles per hour. It's as if we continued the underwater shot in the flying shot, with the two overlapping."

The transitions between the helicopter and Steadicam footage required a cut from an extreme telephoto lens (moving at 100 m.p.h.) to the handheld Steadicam fitted with a 10mm lens. To cheat this transition's velocity, Planet Blue effects artist Nathan McGuinness executed a foreground matte painting of palm trees with the Steadicam shot beyond. As with the splash elements in the previous shot, very close foreground objects such as branches and leaves also sold the illusion of a continually rapid pace.

Reliance on digital technology for the transitions, however, led Jackson to other innovations during the trailer's postproduction phase. Ordinarily, a live-action piece would not be subject to computer manipulation, but the digital transitions meant that the entire trailer became high-resolution digital data — one continuous effects shot. Jackson's decision to postproduce the trailer in the digi-

tal realm was influenced by his experience as both a commercial director and as the helmsman of the effects-heavy Imax sci-fi/action-adventure film *The Journey Inside*. "I'm a quality maniac," he confesses. "And with TV commercials, I have the luxury of perfect high-resolution effects on the Flame. I'm able to



deliver my final product on a digital format D-1 or Digital Betacam that always looks the same.

"For the Imax film," he continues, "all of the special effects were done with traditional optical printers. Because there were so many subtleties, if the color and light didn't look right from shot to shot, it would ruin the power of the piece. I gained a lot of insight into how careful you have to be to make sure that your final results have the latitude to survive the printing process."

Adamant about quality control, Jackson decided to do all of the compositing in the *Inferno* system at Planet Blue. To maintain the greatest possible consistency, "all of the colors were defined in look-up tables in the

*Inferno* so we knew the colors would be right." After Planet Blue completed its task, Jackson took all of the data to Cinesite, where the entire piece was color-timed in the Cineon; he did film-outs to ensure that the hues met his specifications. "All of the color timing usually done in a lab was done on a computer, which allowed me to better match the color and texture of photographic layers and scenes shot under wildly varying conditions," he explains. "What we ended up with was a fully color-timed piece at Cinesite, so we needed no scene-by-scene color correction in a lab."

In fact, Jackson enthuses that color-timing the trailer in the Cineon was "more like my experience in telecine than that of color timing in a laboratory, because I was able to turn the knobs and see the color correction I'd asked for on the screen. With so many tools at your fingertips, you can enhance the look of your picture, as opposed to just getting the best color that you would with a [standard] color timing. For example, you can animate the contrast of a scene, or make the greens in a jungle more bright."

Another first followed when Jackson skipped the step of creating an original negative and instead output an original anamorphic widescreen and flat 1.85:1 electronic interpositive. "We stayed in the digital realm as long as we could," he observes. "With a release like this, there will be thousands of prints, for years. By skipping the original negative, we skipped a generation and the resulting loss of image quality.

"Another rationale was that the intermediate stock that we used to make interpositives and internegatives [Kodak 5244] is vastly superior to original negative film," he continues. "The contrast range is totally different and has a much higher resolving power. So going straight to that interpositive gave me higher quality and a much more consistent-looking print. When you go through

A runner breaks away from the pack with the aid of Reebok tennis shoes and some computerized assistance from Tape House Digital Film. Director/cinematographer Sam Bayer of HSI Mars shot the spot (designed by New York agency Berlin Cameron & Partners) in 35mm, and then post-produced with the latest digital telecine, effects, and editing tools at The Mill in London.



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# Crossing Over in Post



A series of frames from Pavlov Productions' theatrical trailer "Quest," created for Sony Dynamic Digital Sound. Beginning within an underwater volcano, the camera makes a virtual move through the ocean and into a tropical jungle, ending with the SDDS logo emblazoned in molten lava.

intermediates from the original negative, things become more contrasty. Special effects shots suffer the most from these intermediates, but we were able to preserve the original contrast levels of the scenes."

This technical exercise has allowed Jackson to draw certain conclusions about applying video post techniques to a film project. "I never would have attempted the SDDS trailers without digital post-production," he asserts. "At their root, all of these techniques are photographic in nature. If you're a filmmaker and you understand the process, you're really doing what other people have always done, from the Lumière Brothers onward: manipulating pictures. And as long as you don't lose sight of that, you don't need to fear digital."

**New Horizons**

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and services for clients who proceed to film from any format, including tape, computer files, and scanned and manipulated images. With a host of off-the-shelf and proprietary technology for motion picture film recording and scanning — tape-to-film transfers, or imagery interpolation from lower to higher resolutions for print and cinema — the postproduction facility has a great deal of experience shuttling between the worlds of video, film and computer data.

Even so, according to vice-president/general manager Alfie Schloss, the outfit's recent work on two theatrically released commercials presents a dramatic illustration of the ways in which video postproduction techniques can be used on film projects. New York-based advertising agency Gigante Vaz & Partners surmised that a cinema commercial would be the perfect marketing ploy for Aiwa's home theater Surround Sound products. The rather minimalist spot (shot by Propaganda Commercials director Rene Eller and cinematographer Peter Vermeer with a Bolex 16mm camera) features high-speed product shots, graphics and an animated end logo.

Using their Philips Spirit DataCine, Tape House Digital Film transferred the 16mm negative at 2K resolution to data (10-bit FIDO files). Those files were then sent to Charlex in New York, which used Discreet Logic's Flame to remove the dirt artifacts produced by shooting high-speed 16mm, erase a rig, and animate the logo. Meanwhile, Tape House Digital Film, employed Macintosh-driven Photoshop software to animate the title. The final pieces were assembled with Silicon Graphics equipment and proprietary software, and then shot out to 35mm negative with a Management Graphics Solitaire Film Recorder.

Since the Philips Spirit DataCine offers data transfer capabilities, Tape House Digital Film

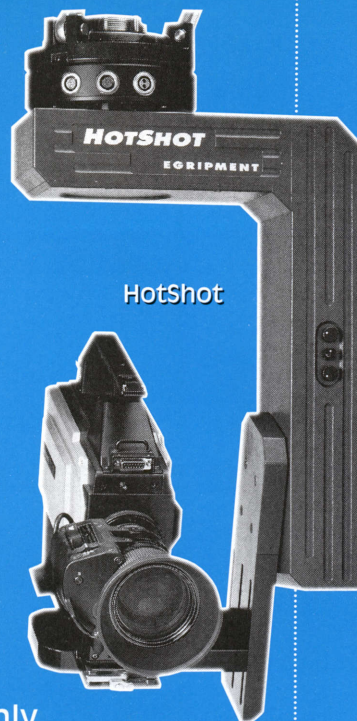


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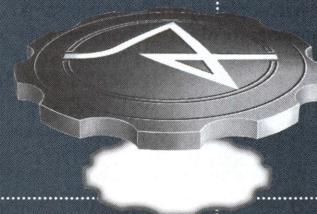
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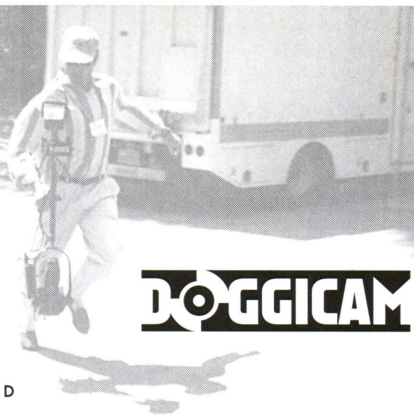
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## Crossing Over in Post

could transpose the 16mm negative as if it were a regular video telecine session, with traditional color-correction and dirt-removal tools. "If we hadn't done it this way, an optical would have been done to blow the footage up to 35mm, which would have increased the grain dramatically — rig and dirt removal would have been virtually impossible," explains Schloss. "And if we had scanned it, there would have been no color correction. When you scan motion picture negative in a digital film scanner, the idea is that whatever is on the negative is what you end up with on the computer file. There's no ability within that process to change how that film looks." Instead, as Schloss notes, the scanned material would have been assigned to a digital workstation, where color correction is a much more time-consuming and expensive process.

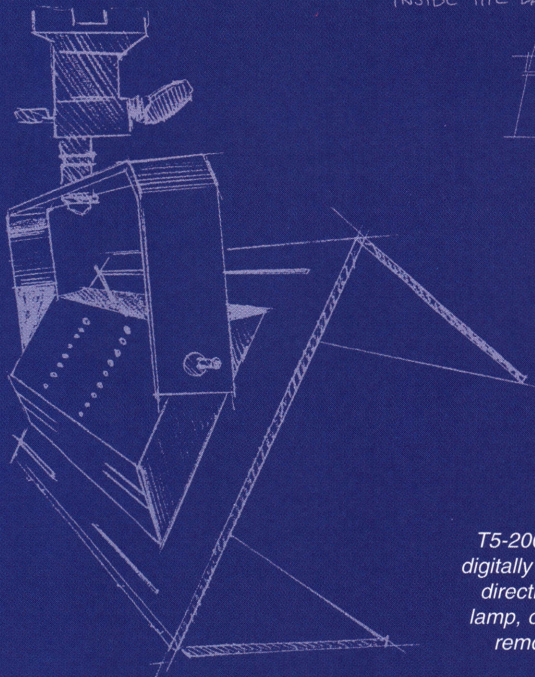
Of course, a digital artist's vast expertise does not always lend itself to the type of color manipulation typically employed by a telecine colorist. Comments agency producer Noel Tirsch, "The job probably would have been a lot easier if we'd shot it on 35mm as originally anticipated. Problems began there because of the dirt elements. But the Spirit session was phenomenal. We felt like astronauts landing on the moon, trying to figure it out as we went. Monetarily, even though Spirit work is expensive, if you're approaching the commercial with economies of scale, you can do a fantastic job for not a huge amount of money."

Schloss points out that transferring the material to data with the Philips Spirit DataCine "opens up the avenue of introducing colors that would be difficult or excruciatingly expensive and time-consuming in the conventional digital film optical world, and impossible in the conventional film world." Filmmakers thus have the familiar toolset of video telecine, along with the power of digital technology. "Since the



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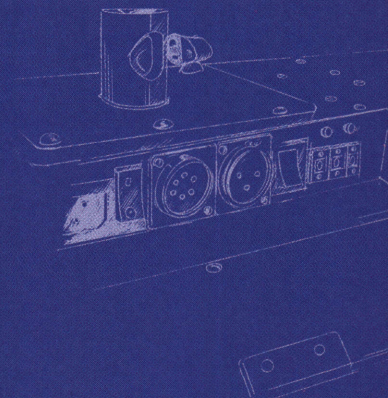
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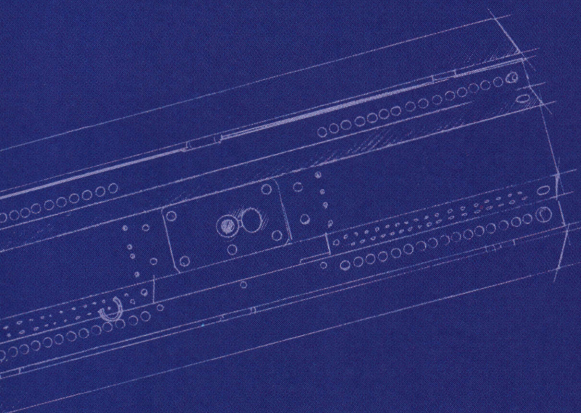
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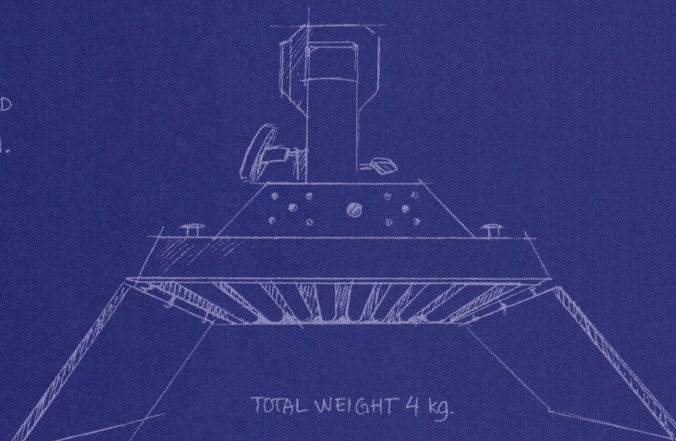
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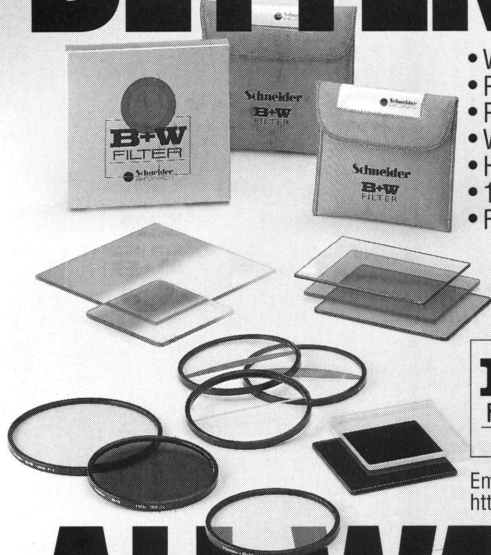
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## Crossing Over in Post

DataCine is capable of transferring at reasonably high resolutions, it's possible to do even non-effects sequences that way, and it opens up the possibility of shooting in 16mm or Super16 — even if you're releasing in 35mm — without optical blow-ups that introduce noise and dirt," explains Schloss, who says that pin-registered transfers may soon be an option as well.

Tape-to-film transfer is hardly a new practice. Facilities such as Tape House Digital Film, E-Film in Hollywood, and Computer

**"We've taken the best of one world — the film-to-tape transfer and postproduction techniques used in video — and successfully applied the same methods to motion picture techniques."**

— **Alfie Schloss,**  
vice president  
Tape House Digital Film

Film Company in London and Culver City have been doing them for several years. But Schloss points out that this process is merely another way to apply video postproduction tools to a film project. Director/cinematographer Sam Bayer of HSI Mars shot Reebok's "Breakout" commercial campaign (designed by New York agency Berlin Cameron & Partners) in 35mm, and then postproduced the spots with the latest digital telecine, effects, and editing tools at The Mill in London, where it was finished in PAL D-1. For projection in movie houses, Tape House Digital Film took the PAL D-1 master and, using their proprietary interpolation software, recorded it onto Kodak 5245 negative at 2K resolution. Says Schloss, "The result is a really wonderful reproduction of what



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\*Technical editing of the 8th Edition ASC Film Manual is being overseen by Rob Hummel, head of animation technology for DreamWorks, SKG. He is an associate member of the American Society of Cinematographers, and has served as an executive VP of the Technology Council of the Motion Picture and Television Industry, and is an active member of SMPTE.

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## Crossing Over in Post

was created for television, with a contrast level that is appropriate for motion picture film," says Schloss. "When Sam [Bayer] saw the film screened at Technicolor in New York, he was ebullient. He said it was beyond anything he thought he could see in film. Within this technique, he saw a way of getting more on film than he could ordinarily get with the conventional method of shooting and then going to the lab."

"Our role is to see that the materials produced for TV will translate properly to cinema," Schloss adds. "This is a tried-and-true technique, but it's one that people are gravitating to more and more as they realize that the powerful digital tools used in video postproduction can be transferred to the film world. We've taken the best of one world — the film-to-tape transfer and postproduction techniques used in video — and successfully applied the same methods to motion picture techniques."

### Postscript

In past years, the large file size of film-resolution images impeded their easy handling in the digital world. Now, however, the powerful tools being used to fashion digital effects have helped to breach that barrier. As massive amounts of storage and computing power become more commonplace, the ability to treat film images as just so much data will become increasingly routine. Some pioneers, such as those described in this article, are already testing the possibilities and limits of applying video postproduction techniques to film. As their experiences open new creative doors, others are sure to follow, making digital postproduction an arena that merits further scrutiny. ■



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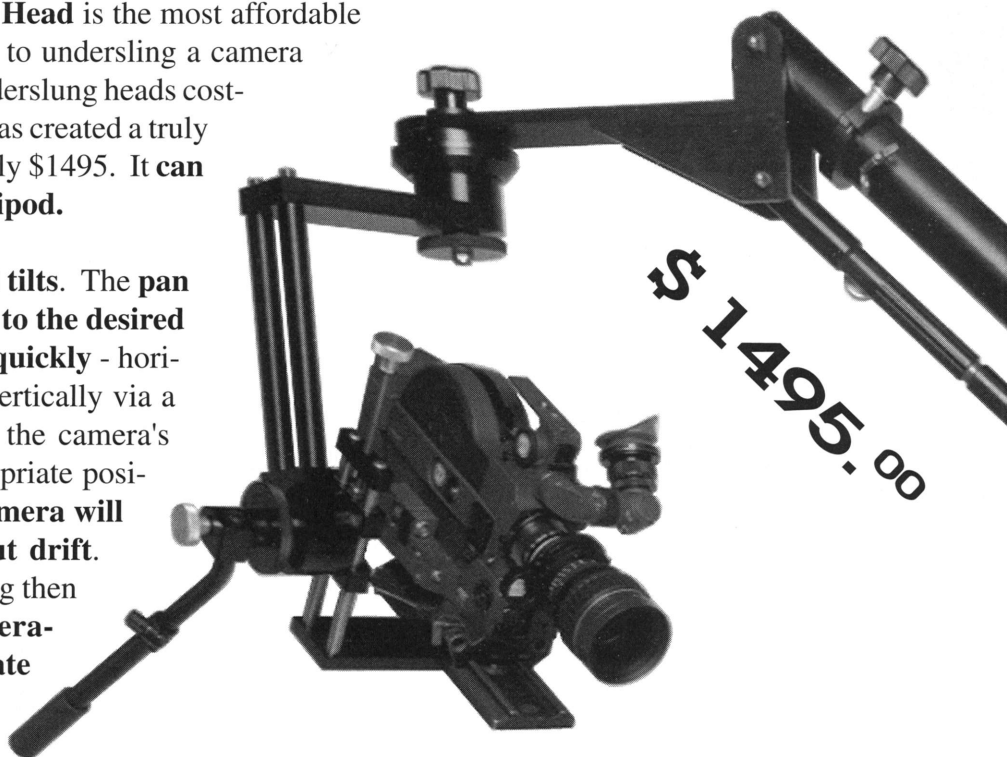
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While the Internet has recently proved to be an alternate creative outlet for many print-design specialists, the current migration of graphic artists into the commercial production realm began years earlier. One impetus for this move was the rapid-fire cutting style that dominates today's digital editing suites. With

from the production side, and then we'll have a beautiful experience with editing and post as well, because it's all tied together. It's putting two worlds together: the commercial world and design/film world."

Some of the companies that have turned to Fuel for additional image-producing octane include Apple Computer, AT&T Wireless,

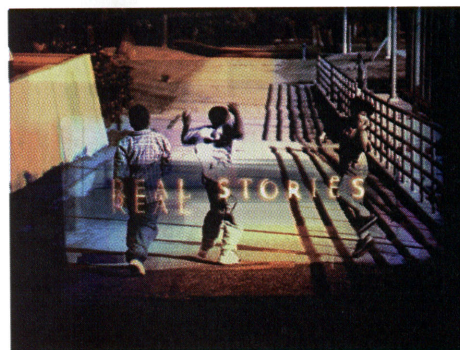
more organic. We're also a bit younger than they are, so we're still evolving. Some of the commercials we've done are clean and elegant, while a package of spots we recently did for a sports network is really hyperaggressive. We're trying to fit the opportunities that arise in the marketplace."

The digital multimedia revo-

# Different Thinking

How the computer revolution in multimedia gave rise to Fuel, a design and production studio focusing on creative commercial work.

by David E. Williams



audiences often allowed mere seconds to absorb every shot, each must be carefully devised to be simpler and more striking while conveying as much or more information. Another factor was the increasing availability of affordable digital tools that facilitate high-end, motion-picture image manipulation and offer ever-simpler interfaces to non-traditional filmmakers.

"Our company was built to be both a graphic design and live-action production company, so we bring in great people from both fields to deal with any given project," attests Seth Epstein, the founder and self-described "chief catalyst" of Fuel, a Santa Monica-based commercials company that recently moved into its new postmodern digs just over a hundred yards from the Pacific Ocean. "That way, the client or agency can be totally taken care of

Bubblicious, Cisco Systems, Dell Computers, UPS, Mattel and Dodge/Chrysler. Television clients include CBS, NBC, Fox, MTV, ESPN, The Disney Channel, E! Entertainment Television, The Food Network and The Movie Channel.

Less than a decade ago, boutique digital design/production companies like Fuel did not exist, while the bones of larger companies in the field (including Pittard Sullivan and Imaginary Forces, whose work was profiled in *AC* May 1998) were just being formed. Asked to position his firm with these others, Epstein offers, "An outsider might say, 'Don't each of these companies do the exact same damn thing?' Well, no. We're similar, but the biggest differences are stylistic. Pittard Sullivan is very clean and glossy. Imaginary Forces' work is much more filmic or 'title' looking. We're a bit

lution of the mid 1990s jump-started Epstein's interest in computer-aided imagemaking, as affordable RAM and megahertz power increased exponentially in relation to cost and such relatively easy-to-learn yet professional-grade software as Adobe's Photoshop, After Effects and Illustrator became commonplace. "I've always looked for the most appropriate and powerful way to make images," Epstein says. "At that time, the Macintosh computer was the most powerful, expressive tool around. This was in part because it was also the easiest — I didn't know what I was doing with computers, and if it wasn't easy, I wouldn't have been doing it. And that's why I think the Mac was and still *is* so amazing — it jumps a big technology gap for a lot of people."

As a testament to Epstein's continuing dedication to the Macin-

Images courtesy of Fuel.



tosh platform, Fuel's offices hum with workstations bearing the Apple logo, including a pair of Media 100 offline editing systems. "We're looking to expand our capabilities in the finishing department," Epstein reports, "but we're Mac-based and After Effects-based, and we need a platform that will allow us to port uncompressed digitized footage through our current system." One possibility he's looking at is the Soft-image/DS, a nonlinear editing system that has offline/online capabilities.

Asked about how his company's future may be tied to Apple's, Epstein attests, "I'm an optimist, but I believe that Macintosh is

away. I couldn't believe what I saw — that I could create whatever I wanted and have complete control on this computer. That was like the big lighting bolt that hit me, and from there, everything unfolded. Part of my vision at that time was that the Macintosh would be a critical element in postproduction work. That helped me feel that what I wanted to do was achievable. I still feel that way, which keeps me going."

Seeking to create a niche for himself in the commercial realm, Epstein "began studying production values, asking why some things looked so damn good and others looked so crappy. I began to explore

You're stuck in a quality paradigm because you want to be in complete control. That's the biggest trap in the world in terms of quality. Now, video is great for many, many things, and using film is sometimes inappropriate for some of those things. But if you want to do certain kinds of things, you have to make the jump to film. It was during that jump that I realized that I didn't know what I was doing and I couldn't learn. I couldn't be a director of photography, a gaffer, an operator, and an A.C. — I can't learn all of that stuff. That's why I knew I had to bring in other people."

One of those people was director of photography Brian Dapp,



going to do some serious damage in the market this coming year. Their G3 chip really smokes, so if they can make a bold enough move with the G3 architecture to create some bitchin' dual-chip 500- or 1,000-megahertz machines, I think some pretty amazing stuff is going to happen in the marketplace."

Epstein began his career as a freelance print graphics designer, but he had "also done some work for Rhythm & Hues and Boss Film, although I didn't know much about the [visual effects] world. I was just doing things like shooting video, digitizing frames and then manipulating them to look really cool. A friend told me that what I was doing was similar to what a friend of his was doing, and that I should meet him. Well, I met this guy and he was using a Mac with a Radius VideoVision card, and I was totally blown

the differences between video and film — Super 8, 16mm and 35mm versus DV, Hi-8 and others — and to look for ways that each of those integrated into my work in terms of image quality, compositing, latitude and final results."

However, at this point, Fuel was still primarily a one-man show. "Shooting with video is affordable, so you don't really need anybody to help you," Epstein insists. "Mistakes aren't so costly. Super 8 film is also affordable; you can shoot it, send it off to be processed and then do something with it. But when you move into 16mm and 35mm, that's where things start to get interesting. I had to admit, 'I don't really know what the hell I'm doing.' That was a critical experience. The best thing about video is that you can do it all yourself. The worst thing about video is that you do it all yourself.

a graduate of the San Francisco State University arts program who studied still photography before leaving the Bay Area to pursue a cinematography career in Los Angeles. "After moving to L.A. and assisting around town for two years, my first paying job as a director of photography was for Fuel," he says.

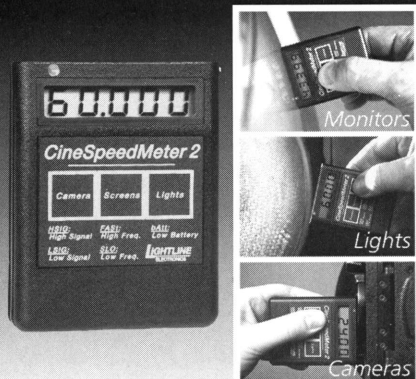
The cameraman recalls that this initial project was beneficial both to himself and the company, as Fuel's staffers were trying to assert themselves more into the production world, and needed the capability to shoot their own footage. Dapp explains, "When I came in, they had hardly shot anything on film, but my idea was, 'Here's this little job that was going to be done on video, so let's shoot it on 16mm. If we have a 16mm budget, let's shoot on 35mm.' We were often working at a break-even or loss basis, but it was a grow-

A series of frames from promo spots created by Fuel for the CBS program *Eye on People*. The densely layered images are composed of both historical footage and new material. A series of four spots were created.



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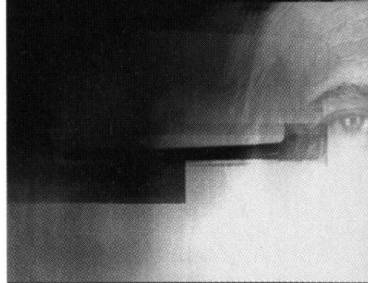
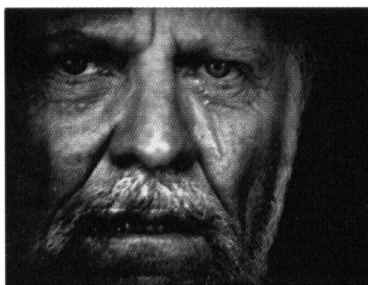
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# Thinking Different



Additional frames from the *Eye on People* spot entitled "Sorrow."

ing process for everyone."

"Brian and I soon realized that we're dedicated to the same ideas," Epstein says. "We're on a similar creative path. Consequently, we made a verbal commitment to each other, stating that we would do whatever it took to bring each other to the top. And wherever appropriate, he would do his work and I'd do mine. If he was booked on something else, I'd use somebody else, but that wouldn't affect our commitment. Why is that significant? It's obvious. Beauty can't always be bought. Dedication can't always be bought. Shooting for 15 or 16 hours nonstop can't

always be bought. The difference is that we have a commitment, trust, and an understanding. Do I bring in somebody else if Brian is booked? Yeah. Do I look at other people's reels? Yeah. But I work with Brian."

Dapp also shoots for such companies as Silver Hammer, Pittard Sullivan, Three Ring Circus and others. "In the last five years, with the proliferation of cable TV, the broadcast design market has become really busy," the cameraman says. "There are a ton of little companies doing this kind of work, which creates great opportunities for young cinematographers to do interesting work and build up their skills and experience." He adds that it's also a great field for the seasoned professional to learn and experiment with unusual techniques: "A lot of these spots are very effects-intensive, and you can never stop learning as technology changes. Let's put it this way: the week after one post house in town installed a new Philips Spirit DataCine, I was invited over to do some tests on it. At that point, most people working in the television or feature world had never even seen one."

The duo's working relationship is an active one that thrives on constant stimulation between shoots. Epstein relates, "Brian will often call me up and say, 'Hey, I've got to show you this video!' Or this film, or picture, or thing. And I'll do the same. That elevates both of us. If you want to elevate yourself, surrender to the support around you — everybody wants to be successful. There's no 'competition,' we're all just striving to do better. And that's a part of our company philosophy as well. That's where we come from, and that's why Brian and I work so well together, not to mention the fact that he's a great cameraman. I hope the cinematographers who read this understand our relationship and see that it matters. The director of photography should never be a 'gun for hire,' shooting things and just



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## Thinking Different

getting clips for his or her reel. They're part of the creative process, and we need more of that in our community."

However, this is not to say that things always run smoothly between Epstein and Dapp. "We mostly hear that working relationships are completely successful and everybody always gets along," Dapp states. "Well, disagreements are part of the creative process as well, and that's one of the reasons I get along with Seth so well. We disagree on half or everything, but we've reached the point where we can push past that as being a 'problem.' We can question and challenge each other's ideas in a constructive way. He's the director and it's his vision, but I have my tastes and preferences and I'll push for them."

Other key in-house personnel at Fuel include executive producer Moody Glasgow. "He came to us with a commercial production background, not a design background," Epstein says. "I'm into a very visionary, futuristic sort of look, while Moody is very practical from a production standpoint. Brian is a very critical link between the two areas, which is a good mix. We also employ a variety of designers, animators, tech support, and also bring in freelance producers for live-action shoots — people with backgrounds that compliment the project at hand — someone with graphics background for this, or a visual effects background for that."

Additional teamwork from outside of Fuel often comes into play during the finishing process. Epstein says, "For postproduction work, we mainly use Pacific Ocean Post, Complete Post, Avenue Edit, or sometimes Finish Line, while other companies will sometimes team with us on their projects. There's a lot of cross-pollination." However, as Fuel's capabilities expand, more and more finishing is being done in-house.



on the edge of the millennium



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# Thinking Different



Two shots from "The Chase," an L.A. Gear spot which illustrates cameraman Brian Dapp's use of shallow focus. The vignetting effect was achieved during telecine with Power Windows.

Creating a recent commercial for Bell Canada, the Fuel team was inspired by a true-life story. "As we discussed ideas with the Bell Canada people, we were told a wild story about how this particular group of people dialed in for a conference call," Epstein says. "Soon after, the operator noticed that the voice-recognition meter just dropped off to silence, which would normally mean that something was wrong. She broke into the call to make sure everything was okay, and the callers

explained to her that everything was fine: they were religious people living in different parts of the country, and they used the service to pray together in silence for two hours every week. That was an amazing story, so I wrote the script right there."

The commercial — entitled "Preachers" — depicts each of the callers dialing up and spiritually embracing in deep prayer, highlighting the silent clarity of the telephonic connection between them. The shoot's locations included "an incredible Roman Catholic church in downtown Los Angeles," Epstein remembers. "It has an amazing gold mosaic with this huge Christ figure — it was so beautiful. We shot in there primarily with natural light and bounce fill."

"We wanted to have a less 'perfectly art-directed' look for this spot," Dapp relates. "We were almost working in a documentary style.

We'd show up on location with some props and compose shots according to what the natural light was doing. That way, the lighting could be beautiful in a way that is sometimes difficult to achieve with artificial sources. The trick was that we might not be shooting images that were graphic enough for the style we had in mind, because we weren't working with a frame built from scratch. Even in a 'documentary' situation, you have to move and change things to add contrast and depth. Short-form



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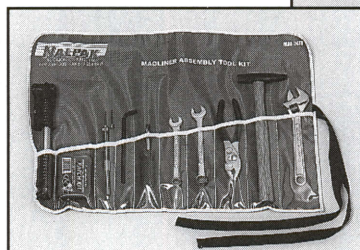
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imagery depends on that, because the shot may only last for two seconds on the screen."

Dapp regularly uses his own Arriflex 35-III to shoot such spots, but does not rely on any specific lens or camera configuration. "Rather than discussing *what* I use, the more interesting questions are how and why," he says. "Lenses all have different qualities, but our choice of lenses often depends on which rental house is making the deal for the project. I'm happy with both Panavision and Arriflex. I love the Primo 11:1 zoom because it's very sharp and faster than the Angenieux zoom that you'd use with PL-mount cameras like the Arri. But Zeiss lenses are great as well.

"When I studied still photography, I learned more about lenses and the technology of film and light than I'll ever need to know. At this point, I'm kind of glad that I've

forgotten a lot of that stuff, because I'm not one of these guys who wants to know everything. I want to see the bigger picture. I'd rather discuss the overall tone of a piece rather than fret over all of the minute details."

One photographic trait seen in "Preachers" that is common throughout Dapp's much of work is the use of extremely selective depth of field. "I personally love using out-of-focus images to convey certain emotions," Epstein remarks. "For a spot we just did for L.A. Gear [entitled "The Chase"], there are a lot of shots that are completely out-of-focus, which makes it more impressionistic rather than literal. It's more elegant and fluid, which suggests a stream-of-consciousness feeling."

Dapp concurs, adding, "When you look around, you'll see that most things are 'in focus.' That's the nature of the human eye. But I think it's a little too close to reality to shoot

everything with great depth of field, so I like a shallow depth of field whenever possible, which simply becomes a case of working at particular focal lengths and T-stops." Composition is another part of this process of abstraction; using frame lines to bisect subjects and disorient the viewer "can again make things just a bit 'off' reality, which is often more interesting and beautiful. Sometimes this can even be a matter of closing the eyepiece and just moving the camera in a spontaneous way around an object, which can result in the kinds of 'accidents' that are unlike anything that could have been planned."

Epstein notes that shooting with shallow-focus effects in mind means that extra care has to be taken in creating a foreground, middle-ground and background, then deciding what should be emphasized, stressing that "we always try to

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## Thinking Different

create these effects during the shoot as opposed to doing them in post."

However, "Preachers" and some of Fuel's other work has benefited from the use of da Vinci's Power Windows software, which was used to add graduated vignetting and other coloring effects during telecine. Along with several of the company's other spots, "Preachers" was transferred by Sparkle (Steven P. Arkle), a colorist at Complete Post whom Epstein considers to be a de facto member of his creative team.

Dapp says that he regularly knows beforehand who will be over-seeing the telecine on his footage for Fuel, and that planning to work with the appropriate colorist is an important aspect of preproduction planning. "As often as we can, we steer a project toward certain people," he explains. "I'll light and shoot the way I feel something should be done, but it helps to know that I'm going to a colorist who can help realize what we're after."

However, while Epstein and Dapp tended to create extensive shooting plans for their earlier work, their approach has become more spontaneous as of late. "We're more accustomed to not knowing everything in advance and 'waiting for the day,' as I call it," the cameraman says. "Seth and I both like that sense of improvisation and experimentation."

In closing, Epstein offers, "The commercial directors out there who don't understand the way we're trying to approach our ideas are still going to be doing beautiful and effective work as always, but a new generation of people in this field — like Imaginary Forces, Pittard Sullivan and ourselves — will move past them. We grew up with digital technology and the concept of multitasking; it's our nature. And you can't fake that. You either have it or you don't. But again, we're still the minority, and it will stay that way for a while to come."





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## THE IMAGE OF CHOICE



# A Cop Gone Wrong

Orson Welles and Russell Metty, ASC lent cinematic panache to *Touch of Evil*, a noir thriller whose script was rescued from the reject pile.

by George Turner

A policeman's job is only easy in a police state," Charlton Heston tells Orson Welles in *Touch of Evil*. "That's the whole point, Captain. Who's the boss, the cop or the law?"

This rhetorical question lies at the heart of Welles's moody and evocative 1958 movie. In exploring the time-tested theme, Welles, a wildly variegated cast and a sturdy Universal production crew lead viewers through a shadowy maze of strange people, crime, squalor and

movies, but the studio had kept Zugsmith in the "nervous A" budget category because he specialized in "exploitation pictures." These made money because of their sensational qualities rather than extravagant production values. Most — but not all — were potboilers. Certainly the 1957 pictures *The Incredible Shrinking Man* and *Written on the Wind* were nothing to be ashamed of.

Dumping Zugsmith and Welles into the same crucible would seem as aberrant as pouring ketchup



moral decay. The result is a 20th-century American version of a yarn that might have been spun by Charles Dickens or Victor Hugo.

The production history of *Touch of Evil* is almost as colorful as its story. Universal, renamed Universal-International following its merger with International Pictures, had purchased film rights to Whit Masterson's pulp novel, *Badge of Evil*, and put it on producer Albert Zugsmith's slate for the 1947-48 season. U-I had sworn off making B

on ice cream. Given an almost generous budget (just short of \$900,000) and a five-week shooting schedule, Zugsmith went all-out to gather a prestigious cast. He first signed Orson Welles, thus spurring the interest of Charlton Heston (who was in the spotlight for his performance as Moses in Cecil B. DeMille's 1956 religious epic *The Ten Commandments*), and then hired the increasingly popular Janet Leigh. Heston okayed Paul Monash's script, but said that his decision would



ultimately depend upon who was chosen to direct. He dropped the hint that Welles himself was a pretty fair director.

Welles had not directed a movie in the United States since Republic's *Macbeth* in 1948. He had recently returned from Europe to produce *King Lear* on Broadway, and was hoping to re-establish himself in American movies. According to Zugsmith, Welles asked which of his projects had the worst screenplay; the producer replied that it was probably *Badge of Evil*. Welles said he would direct the project if he could have two weeks to rewrite the script. It is probable that Welles was given the writer-director job (without extra pay) in order to lure in Heston and Leigh.



In his rewrite, Welles changed the tale's locale from San Diego to the fictitious bordertown of Los Robles, a decaying dumping ground for criminals and other vagrants. The book's hero, an Anglo detective with a Mexican wife, became lantern-jawed Mike Vargas (Heston), chairman of the Pan-American Narcotics Commission, whom we meet as he is honeymooning with his Anglo bride, Susan (Leigh). The two are walking on the United States side of the border checkpoint when they see a millionaire and a blond stripper blown to bits by an incendiary car bomb. Unofficially, Vargas joins

famed American police captain Hank Quinlan (Welles) and his worshipful assistant, Pete Menzies (Joseph Calleia) in the investigation. When Vargas realizes that Quinlan is framing a Mexican youth for the crime, he becomes determined to expose the corrupt cop. He soon enlists the aid of Schwartz (Mort Mills), an assistant district attorney who points him toward evidence that Quinlan used manufactured evidence to send numerous murder suspects to death row.

Meanwhile, the leader of the Grandi gang, "Uncle Joe" (Akim Tamiroff), who hates Vargas for sending his brother to prison, connives with Quinlan against the upstanding attorney. As Vargas becomes enmeshed in his quest, Grandi's goons terrorize Susan at an isolated motel, inject their terrified victim with sodium pentathol to make her appear to be a heroin addict, and deliver her to a sleazy hotel room. Arriving on the scene, Quinlan strangles Grandi and leaves the body on Susan's bed.

However, even the faithful Menzies turns against Quinlan when he finds the captain's cane near Grandi's body. Torn by conflicting emotions, he wears a hidden mike and accompanies the drunken Quinlan on a nocturnal prow through an oilfield dump. Vargas follows and records their conversation, which reveals Quinlan's villainy. Catching onto the setup, Quinlan shoots his sidekick. He is about to kill Vargas as well, but the dying Menzies manages to gun down Quinlan in the nick of time.

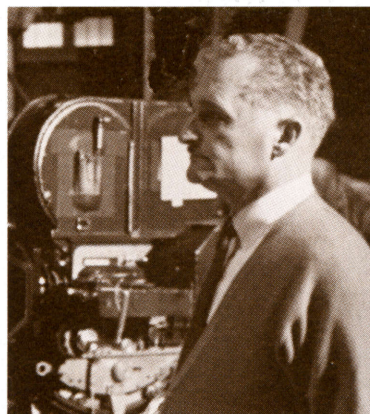
Instead of using the Universal backlot's bordertown set, Welles and art directors Alex Golitzen and Robert Clatworthy elected to transform areas of the colorful oceanfront city of Venice into Los Robles. A beautiful city built to resemble its Italian namesake — complete with Mediterranean architecture, canals and gondoliers — Venice had fallen on bad times. The waterways and



bridges had gone to pot, many of the downtown buildings were run-down, and the area had become a high crime zone. Because most of the film's exteriors were shot night-for-night, the city also proved to be a gigantic lighting job. There are many deep-focus shots looking up and down long streets past the landmark series of arches, some of which are still there today. To add the appropriate ambience, studio technicians dumped trash everywhere, and wind machines swirled the debris around.

Russell Metty, ASC, who was employed at U-I when Welles arrived, had previously shot the filmmaker's 1946 effort *The Stranger*. The big, cigar-smoking cinematographer was just the man to put Welles's wildest notions onto film.

The picture's most remarkable photographic feat is its opening scene, an unbroken 3¼-minute crane shot which ordinarily would have been composed of a series of separate shots. The action covers several blocks of downtown Venice from an



Opposite page: Writer/director Orson Welles portrays warped detective Hank Quinlan in *Touch of Evil*. This page, far left: Between takes, Charlton Heston confers with Marlene Dietrich before the actress donned dusky makeup to portray a Mexican gypsy. Left: Director of photography Russell Metty, ASC. Below: Philip H. Lathrop, ASC, who served as Metty's camera operator on the show.



# A Cop Gone Wrong

amazing array of angles, including close-ups, low tracking shots, very long shots and bird's-eye views. It is further complicated by being elaborately night-lighted, and there is a lot of detail and activity on the border-town street. Metty properly gave much of the credit for the virtuosity of this complex scene to camera operator Phil Lathrop, ASC, who soon became a distinguished director of photography in his own right. The camera seems to float through the action, gliding in all directions, without a glitch.



circles behind the building as the camera moves to a high angle to show it pulling out on the far side and turning right onto the street. The camera then races past and far ahead of the car, swooping down to eye level and turning back as the car moves toward the lens. Vargas and his wife cross the street in front of the car, and the camera moves close to follow them as they turn and walk ahead of the auto. The camera again moves ahead, to the American side of the checkpoint. The guard and the driver chat with Vargas, congratulating him for nabbing Grandi, while Lita complains that she hears a ticking sound. After the auto passes the Vargases, the camera moves in close and picks up their conversation as Mike says to his new bride, "Do you realize I haven't kissed you in over an hour?" As they draw close, a terrific explosion occurs offscreen left. Only then is there a cut, to the Vargases' view of the exploding convertible.

Equally elaborate and difficult, but on a much smaller scale, was the first scene which was filmed. Quinlan interrogates a suspect in the bombing incident in the youth's tiny apartment, and plants dynamite to frame him. Heston recalls that cast members rehearsed during the night. In the morning, Welles and Metty had laid out "a master shot that covered the whole scene. It was a very complicated setup, with walls pulling out of the way as the camera moved from room to room [on a crab dolly], and four principal actors plus three or four bit players working through the scene." This single take covers 12 pages of script in almost five minutes, creating the impression of about 60 setups, yet somehow *never calls attention to itself*.

In another unusual location shot, the camera follow Vargas and five men into a building, where the investigator puts the others — and the viewer, personified by the camera — aboard a tiny elevator. With its

operator crouched in a corner, the camera records the shaky ride to the fifth floor, where Vargas is waiting.

One of the most violent and harrowing sequences in any film is the murder of Grandi in the cramped hotel room. The room is dark, with illumination from a flashing neon sign outside the window. Quinlan, a drunken ogre, pounces savagely on the much smaller Grandi, and the fight rages all around the unconscious Susan. Garotting his victim at last, Quinlan drapes the corpse over the brass bedstead. A "shock" scene comes later, when Susan awakes and we see, from her POV, an upside-down close-up of the dead man's distorted face and bulging eyes.

Most of the picture consists of hard-lit night scenes with jagged, opaque shadows and, toward the end, a few Dutch tilts. Day exteriors were done without fill lights. A few auto interiors were filmed on the process stage, but most were done on location with the camera mounted on the car. The hard-edged style is broken inside Tanya's brothel, the only place where music is sweet, lighting is diffused, shadows are soft and camera angles are resolutely "normal."

Welles brought in several friends and associates for major supporting roles: Akim Tamiroff, Marlene Dietrich (whose personal fondness for Welles led her to join the cast as a "guest star"), Zsa Zsa Gabor (another "guest star"), Ray Collins and Harry Shannon. The latter pair respectively portray a D.A. and a police chief, back-slapping politicians who owe their popularity to Quinlan's success at getting the goods on murderers.

Welles — his substantial bulk padded out grotesquely, eyes rheumy and heavily bagged, nose expanded — is barely recognizable. Ever embarrassed about his small nose, Welles usually enlarged it with putty when performing. He makes

**Intrepid Mexican narcotics officer Mike Vargas (Charlton Heston) consoles his Anglo bride, Susan (Janet Leigh).**

The sequence begins with a close-up of a time bomb in a man's hands as the clock is being set. The camera swings up as the culprit looks down the street to see if anyone is coming, pulls back as the man runs to the right, and follows his shadow along a building wall to a Cadillac convertible parked behind the building. The man puts the bomb in the trunk and runs away as the car's doomed passengers, Linnekar and Lita, emerge from the back door of a nightclub and climb into the vehicle. Pulling away from camera, the car



Quinlan an almost completely despicable character, allowing only brief moments of sympathy such as when the police captain talks about the strangulation murder of his wife by a "half-breed" whom he was unable to bring to justice. (This is Quinlan's rationale for his hatred of Mexicans



and his practice of framing men he deems guilty but beyond reach of the law.) Quinlan also seems more human during his scenes in Tanya's brothel, where his venom subsides until he returns to the world outside.

Heston, his hair and skin darkened, is remarkable as the idealistic Mexican crime-fighter. His exchanges with Welles are sharp, as when he tells him that "I don't think a policeman should work like a dog catcher." He swings into action convincingly when he tears into the Grandi boys and wrecks a saloon in the process. Leigh's delicate beauty and vulnerability, combined with her witty handling of dialogue, set her well above the screen's typical "ladies in distress."

Tamiroff is fine as Grandi, the vulgar narcotics kingpin whose dirty work is carried out by several vicious, leather-jacketed nephews. The character is both menacing and comical, qualities Tamiroff brought to many characterizations. A short, fat, wild-eyed schemer, he wears a heavy toupee that continually goes askew. His Moscow Art Theatre accent comes through amusingly on occasion, as when he addresses Susan as "Mrs. Vargas."

Dietrich, German accent notwithstanding, wears a black wig and smokes cigars as the hard-eyed

madam of a bawdy house. She initially doesn't recognize Quinlan when he wanders into her refuge, which he had frequented in better days. In most of her scenes she seems dispassionate, coldly informing her former client, "You're a mess, honey. You'd better lay off those candy bars," and then telling him, after consulting her tarot cards, "Your future is all used up." Yet at last, when she divines that Quinlan is in danger, she runs outside calling his name. She soon meets Schwartz, who is looking down at Quinlan's corpse lying in a pool of oily water. "You really liked him, didn't you?" he asks the madam. Without apparent emotion, she replies memorably, "The cop did, the one who killed him. He loved him. He was some kinda man. What does it matter what you say about people? Adios."

Gabor, speaking Hungarian-tinged English, looks glamorous in her brief scenes as proprietress of the Rancho Grande, where the murdered girl had been one of "20 Gorgeous Strippers." A number of other Welles chums also joined the cast for unbilled cameos. Billy House, a rotund old stage comedian, and Gus

Schilling, one of Welles's Mercury players and a star of Columbia two-reel comedies, play highway construction men. Mercedes McCambridge is a sadistic lesbian in black leather who joins the boys converging on Janet Leigh in the motel while two girlfriends watch. Keenan Wynn and John Dierkes are just part of the ambience. Joseph Cotten, as a grouchy, cigar-smoking medical examiner wearing a rube hat and toothbrush moustache, first appears at the scene of the bombing. When the police chief comments that Linnekar had the town in his pocket just an hour before being blown to smithereens, Cotten adds, "Now you could strain him through a sieve." When Vargas says he wants to meet Quinlan, Cotten growls, "No you don't." Later, outside Susan's jail cell, he rants about "...articles of clothing, half-smoked reefers, needle marks — you can smell the stuff on her."

More conspicuous is Dennis Weaver, then an obscure Universal contract player prior to his stardom on TV, who does an eccentric turn as the twitchy, half-witted night-manager of the desert motel. A raw-

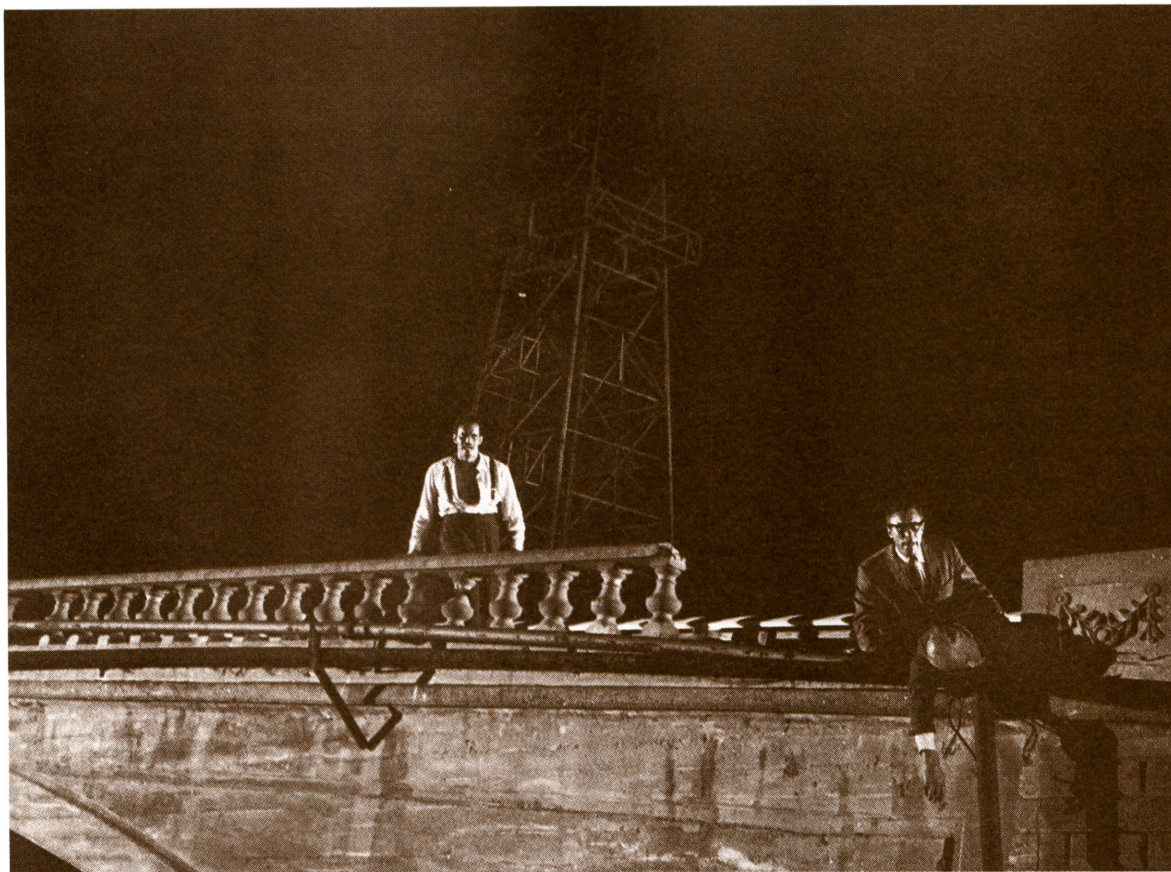
**Left: Susan casts a frightened glance while being terrorized by a Mexican gang. Below: Quinlan and conniving gangster Uncle Joe Grandi (Akim Tamiroff) hatch a dire scheme to frame Mrs. Vargas as a drug addict.**





# A Cop Gone Wrong

Vargas and assistant D.A. Schwartz (Mort Mills), come upon the slumped body of cop Pete Menzies (Joseph Calleia) as they stalk Quinlan on one of the then crumbling bridges overlooking the canals of Venice, California.



nerved religious fanatic, woman-hater and shrieking coward, the character is fascinating but overly flamboyant.

Even among these performers, one man's sincerity stands out. Joseph Calleia, the veteran actor from Malta, makes Menzies the most realistic and touching character in the film. Throughout the first three-quarters of the movie he frisks around Quinlan like a faithful dog, barking at anyone who crosses his boss. It is heartbreaking to see his eyes well up as he watches Quinlan, influenced by Grandi, returning to the bottle after 12 years on the wagon. Even after he realizes his friend is a monster, Menzies tries to defend him, recalling how Quinlan once saved his life by taking a crippling bullet meant for him. When he realizes at last that he must betray his friend, he becomes a stricken man tormented beyond endurance. His agony is the true

touchstone of the film.

Principal photography for *Touch of Evil* was completed in five weeks, on April 1, 1957, and Welles delivered a roughly edited cut the following month. The job of scoring the picture was assigned by musical director Joseph Gershenson to Henry Mancini, who at that time was one of the industry's staff composers, working anonymously in the shadows of musical directors. Welles had requested "musical color" incorporating "Afro-Cuban rhythms" and "traditional Mexican music" mixed with contemporary rock music, most of it coming from onscreen sources such as jukeboxes, car radios, cheap gramophones, loudspeakers and a player piano. He wanted "sustained washes of sound rather than a tempestuous, melodramatic or operatic style of scoring."

Mancini responded with a score that is launched by brief, jarring chords over the studio logo,

followed by a percussive melodic pattern overlying a strong bossa nova beat that pulses through the title sequence until the explosion. The "washes of sound" continue throughout, always rhythmic and often as purposefully unpleasant as the visuals. The one lyrical theme is "Pianola," piano roll music played in Tanya's brothel, which leavens the few scenes that lend Quinlan a hint of humanity.

Welles insisted that the incidental music "should sound as bad" as it would in reality. Toward this end, music supposedly heard over outside speakers or in the motel was deliberately degraded by re-recording it from cheap playback units under similar conditions. Welles enjoyed bombarding his audiences with unpleasant sounds, which he often did in his Mercury Theatre radio broadcasts. (This writer, a former theater man, remembers customers complaining



about the screeching bird in *Citizen Kane*, and the cracked record and persistently beeping telegraph in *Journey into Fear*.)

The striking *Touch of Evil* score propelled Mancini out of anonymity. One admirer of the music was producer-director Blake Edwards, who hired Mancini to compose jazz music for his new television series, *Peter Gunn*. The show was a hit, due in large part to the music, which resulted in two best-selling RCA albums. The success of further Blake-Mancini collaborations, such as *Mr. Lucky* and the *Pink Panther* features, led to an extraordinary career for the young composer.

Welles originally cut *Touch of Evil* with editor Virgil Vogel. Dissatisfied with the result, Welles recut it completely with Aaron Stell, shuffling elements almost frantically, playing fast and loose with continuity and becoming increasingly unnerved. The continuity was rough-edged and non-linear, with cross-cutting almost as disorienting to audiences of that time as the labyrinthine pattern D. W. Griffith had employed four decades earlier in *Intolerance*. Typically, Welles didn't stick around for postproduction. He and Tamiroff headed for Mexico to work on a cinematic version of *Don Quixote*.

Later, Welles returned to screen the studio's cut. Some material had been dropped and several brief transitional scenes added to smooth the continuity. The lengthy opening shot had become a title sequence, with credits superimposed. The added scenes were directed and written by Harry Keller and filmed in "less than half a day," according to Heston, who adds that they "didn't vastly enhance or hurt the film. They were there to help the progression of the story." Both Heston and the late Russell Metty stated that Welles's concept was followed closely in the final cut, and that Keller's scenes did not replace

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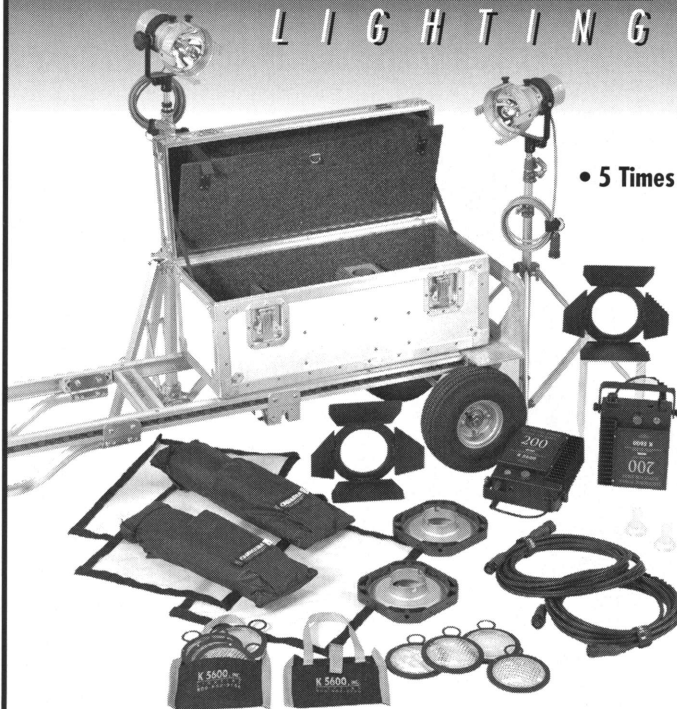
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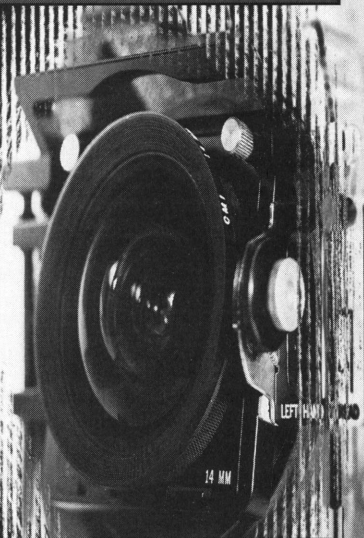
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# A Cop Gone Wrong

any of Welles's footage. Janet Leigh agrees, but believes that although "the changes weren't blatant, unfortunately they were just enough to take away the film's edge."

After a preview, the picture was shortened by about one reel. It opened quietly in February of 1958, without a premiere or much promotion. *Touch of Evil* was a box-office flop, but a jury of international filmmakers awarded it the Grand Prix at the Brussels World's Fair.

It was the last picture Welles directed in the United States.

### Welles Gets His Say

On the same night Welles saw the studio's cut of his film, he penned a 58-page memo detailing some 50 changes that he felt would improve the picture. For the most part this document is good-humored and friendly, although a bit of the heart-break bleeds through. Several of the filmmaker's suggestions were implemented, most were not.

Now, after 40 years, *Touch of Evil* has been recut, following Welles's instructions to the letter. Sponsored by Universal and released by October films, the new edition was produced by Rick Schmidlin and edited by Walter Murch, who earned an Oscar for his work on *The English Patient*. Bob O'Neil was in charge of picture restoration, while the soundtrack was restored under the supervision of Bill Varney, Universal vice president of sound operations and winner of Academy Awards for *The Empire Strikes Back* and *Raiders of the Lost Ark*.

Allan Daviau, ASC, who first read the Welles memo in the fall 1992 issue of *Film Quarterly*, credits UCLA Film Archives founder Bob Epstein with finding the missing *Evil* footage. The cameraman recalls that in the mid-1980s, Epstein suspected that Universal may have had a print of the original Welles cut in their vaults. Requesting to screen every available print of the film, Epstein

discovered a preview version of the picture, featuring the title-free opening shot and later-deleted scenes. This print supplied the footage that was required for the restoration, as per Welles's memo. (Not incidentally, Daviau and friend Steven Spielberg had made a similar quest some years earlier, but had not found their Holy Grail.)

A new digital restoration process offered by Pacific Title Mirage was employed by O'Neil's crew to repair film damage and decomposition in the source negatives. "One part looks as though the negative must have lain on the floor with people walking on it," O'Neil noted.

The serpentine opening shot is most strikingly altered by its return to Welles's original concept. The overprinted titles of the earlier releases were an obstacle for anyone trying to concentrate on the picture, and even more of an annoyance for those few patrons who actually try to read the credits. (To this day, titles continue to be dumped onto opening sequences, and it's still a bad idea.) The restoration of the scene's ambient sound effects adds immeasurably to the establishment of the border town's vulgar atmosphere, and actually helps mold the characterizations of the actors. The only regrettable aspect of the redone sequence is the necessary loss of Mancini's opening music. Film restoration, like the march of civilization, sometimes demands that we take one step back before we can move two steps forward.

Schmidlin had done several years of research before the picture went back to the cutting room. The editing team worked for two months, incorporating both the release negative and the print of the longer preview version. "The film not only plays beautifully, but looks and sounds the way the master himself wanted it to," Schmidlin says. "That's what people really want from this film — to see Orson Welles's



work as he'd planned it. Screening *Touch of Evil* at the Cannes Film Festival this past summer was a dream come true for me, and for international cinema it's an historic event." ■

#### Original Credits and Cast

A Universal-International Picture; directed by Orson Welles; produced by Albert Zugsmith; screenplay by Orson Welles; based on the novel *Badge of Evil* by Whit Masterson; director of photography, Russell Metty, ASC; music by Henry Mancini; musical director, Joseph Gershenson; art direction, Alexander Golitzen and Robert Clatworthy; set decorations, Russell A. Gausman and John P. Austin; Leslie I. Carey and Frank Wilkinson; film editors, Virgil W. Vogel, Aaron Stell, Edward Curtiss; gowns, Bill Thomas; makeup artist, Bud Westmore; assistant directors, Phil Bowles and Terry Nelson; production manager, F. D. Thompson; camera operators, Philip H. Lathrop, ASC and John Russell, ASC; additional direction, Harry Keller; first screenplay, Paul Monash; Westrex sound system. Running time, 96 minutes; MCA video, 108 minutes; 1998 version, 111 minutes.

Ramon Miguel Vargas, Charlton Heston; Susan Vargas, Janet Leigh; Hank Quinlan, Orson Welles; Pete Menzies, Joseph Calleia; "Uncle Joe" Grandi, Akim Tamiroff; Marcia Linnekar, Joanna Moore; District Attorney Adair, Ray Collins; Night Manager, Dennis Weaver; Manolo Sanchez, Victor Milian; Risto, Lalo Rios; Pancho, Valentin de Vargas; Schwartz, Mort Mills; Gang Members, Wayne Taylor, Ken Miller, Raymond Rodriguez; Pretty Boy, Michael Sargent; Blaine, Phil Harvey; Lita, Joi Lansing; Chief Gould, Harry Shannon; Lawyer, William Tannen; Casey, Rusty Wescoatt; Border Guard, Dan White; Ginnie, Arlene McQuade; Lackey, Domenick Delgarde; Jackie, Jennie Dias; Bobbie, Yolanda Bojorquez; Lia, Eleanor Dorado; Young Delinquent, Joe Basulto; Special Guest Stars: Tanya, Marlene Dietrich; Nightclub Owner, Zsa Zsa Gabor; Unbilled Cameos: Police Surgeon, Joseph Cotten; Gang Leader, Mercedes McCambridge; Construction Chief, Billy House; Eddie Farnum, Gus Schilling; Bit Man, Keenan Wynn; Detective, John Dierkes.

#### Credits for 1998 Re-edit

An October Films release; Orson Welles's requested editorial changes produced by Rick Schmidlin; edited by Walter Murch; re-recording, Bill Varney, Peter Reale, Walter Murch; picture restoration, Bob O'Neil; consultant, Jonathan Rosenbaum; assistant editor, Sean Cullen; supervising sound editor, Richard LeGrand, Jr.; sound effects editors, Harry Snodgrass, Robert McNabb, William Hooper; title design, Deorah Ross; digital restoration services, titles, optical effects, Pacific Title Mirage; laboratory services, YCM Laboratories; negative restoration, cutting and timing, Eric Aijala; restored by Universal Studio Restoration Services. Running time 111 minutes.

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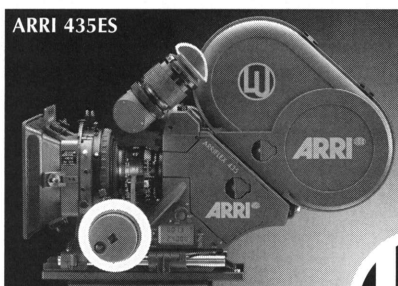
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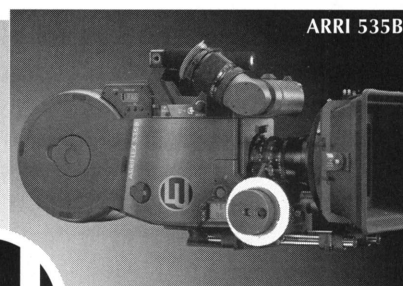


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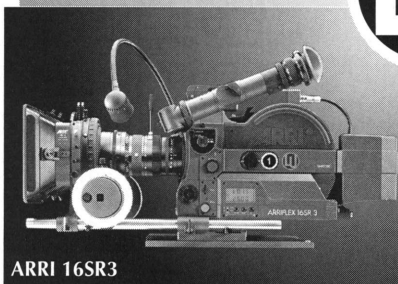
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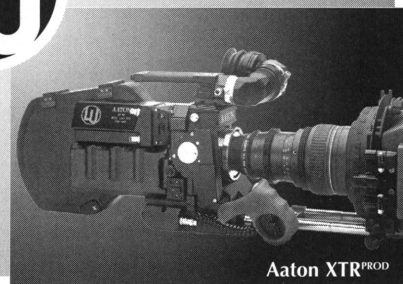
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# Short Takes

## Two Hip Spots Offer Cool Shoes and Telekinesis

### Footloose Photography by Jay Holben

Director Scott Messick and cameraman Mike Ozier got wild with urban youth and their snazzy sneakers in the Skechers Shoes commercial "Concrete Feet." On this 30-second spot (their second for the trendy footwear firm), the duo decided to take the swank shoes out into the street with sharp images of Generation X'ers frolicking within city surroundings. "This was a hip, youth-oriented, music-driven spot that needed a lot of style," offers Messick. "We did a few days of scouting and picked a number of locations that we thought were really cool. Mike and I then came up with some 'street-feel' vignettes for each location."

A graduate of the American Film Institute, Ozier started out as a camera assistant in Boston before easing into the cinematographer's chair. He has since shot music videos for Hootie and the Blowfish, Ice-T and Hammer, along with the theatrical features *House Guest* and *The Sixth Man*. Messick, a longtime friend of Ozier's, had previously employed the cameraman on the Emmy Award-winning, adrenaline-driven series *MTV Sports*. Comments Ozier, "To my eye, commercials have a lot to do with what is fashionable at the moment. I shoot for a certain kind of look — especially for a telecine transfer — with crushed blacks and saturated colors. Beau Leon, my colorist at Post Logic, and I have developed an excellent relationship; basically, I'll keep the clients busy while Beau gets the look I want. And when they see it, they love it!"

Adds Messick, "As far as the visual style is concerned, we have a three-man team: Mike, Beau and myself.



A series of frames from the Skechers ad, which combines stylish photography and state-of-the-art postproduction techniques.

We usually meet with Beau to get his input before we shoot. I try to find people who are really the best at what they do and then defer to their expertise; I defer to Mike on stocks and lenses, and we defer to Beau on what can be done with the transfer in a new sense, as opposed to what we might be following. He's been pretty good at being ahead of that curve."

Leon has a background in painting and has been dabbling with a digital palette for more than 10 years. He did stints at 525 Post and Encore before he landed his current position at Post Logic. Working with the da Vinci 888 color corrector running off an Ursa Gold, Leon explains that "there are a large number of telecine operators out there, but not too many colorists. I like to consider myself a colorist, an addition to the creative team rather than just another tool. Unfortunately, many clients don't take full advantage of the limitless possibilities in the telecine bay. Scott and Mike are both very strong visualists who aren't afraid to experiment."

To achieve the Skechers spot's vibrant look, Ozier employed Eastman Kodak's Vision 500T 5279 and EXR 50D 5245 stocks with a Panastar package from Panavision Hollywood. He also selected several unorthodox lenses: "I picked up some really old Mark IV's, which have soft edges around the sides built into the glass. I call them 'portrait lenses' because your eye is immediately drawn to the center of the frame. I also used some anamorphics [to shoot footage] that we kept squished in the finished spot."

In the interest of expediency, Ozier always does his own operating. "I like to be able to control the framing, as well as grab shots without people know-



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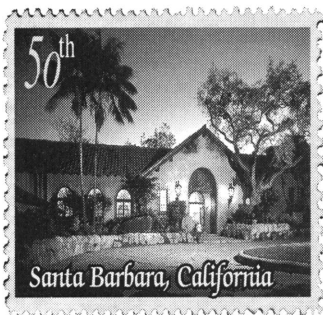
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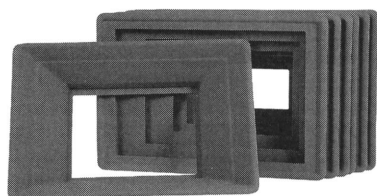
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ing that I'm shooting. On a commercial like this one, a lot of the look is achieved by just capturing things that are real."

Messick adds, "There are times when I will sacrifice some quality for speed because the spontaneity of the moment is better. I don't like to tell people 'Take five, and we'll do it again.' Sometimes it's better to just shoot, and Mike works well in those situations."

As far as the lighting was concerned, Ozier strove to use just a few large fixtures, which also sped up the shooting schedule. However, for close-ups, gaffer John Moore made up several ring lights of different shapes: one was a wooden circle with two-foot Kino Flos attached in a star pattern, and another was comprised of 100W household tungsten globes. "I mounted a ring light to the front of the camera while it was on a Chapman Titan crane," Ozier says, describing a particular setup. "I sat in the operator's seat and the model sat in the assistant's seat, and we drove around town floating in the air and shot whatever background that looked good."

One of the team's major challenges came during the first morning of shooting as El Niño-driven storms drenched their location. Recalls Ozier, "Scott turned to me and said 'How do we make this work? Let's improvise.' We found a parking structure that had some cool areas with beautiful natural light and wound up shooting several shots in there that made it into the final cut: people coming down the stairs, and this girl pushing a guy in a shopping cart. Those were shots that weren't even planned; we just had to 'wing it' because of the rain."

Messick remembers, "It was Mike, the producer, myself and four models shooting in this garage, all the while looking around the corner for cops and security guards. That was fun because we made a bad situation work for us. Once the storm did stop, we got a rainbow, which made a particular 'money shot' look much more dramatic because there were real clouds in the sky instead of L.A.'s usual smog."

The shot in question was a slow-

motion perspective of a model who has grabbed the tether line of a flagpole and swings around into the lens feet first — dramatically highlighting the Skechers emblem embossed on the bottom of his shoes. "We did that shot right at the edge of magic hour," says Ozier. "Since there was still some ambient sunlight left, I was able to light the models more dramatically than the background. I love to light daylight where the subject looks lit and the background still looks natural — which is almost impossible to achieve unless you do it at magic hour. You can't overpower the sun during the middle of the day, even if you have an 18K, but if you shoot at magic hour, you can have the background look normal and the subject still be lit."

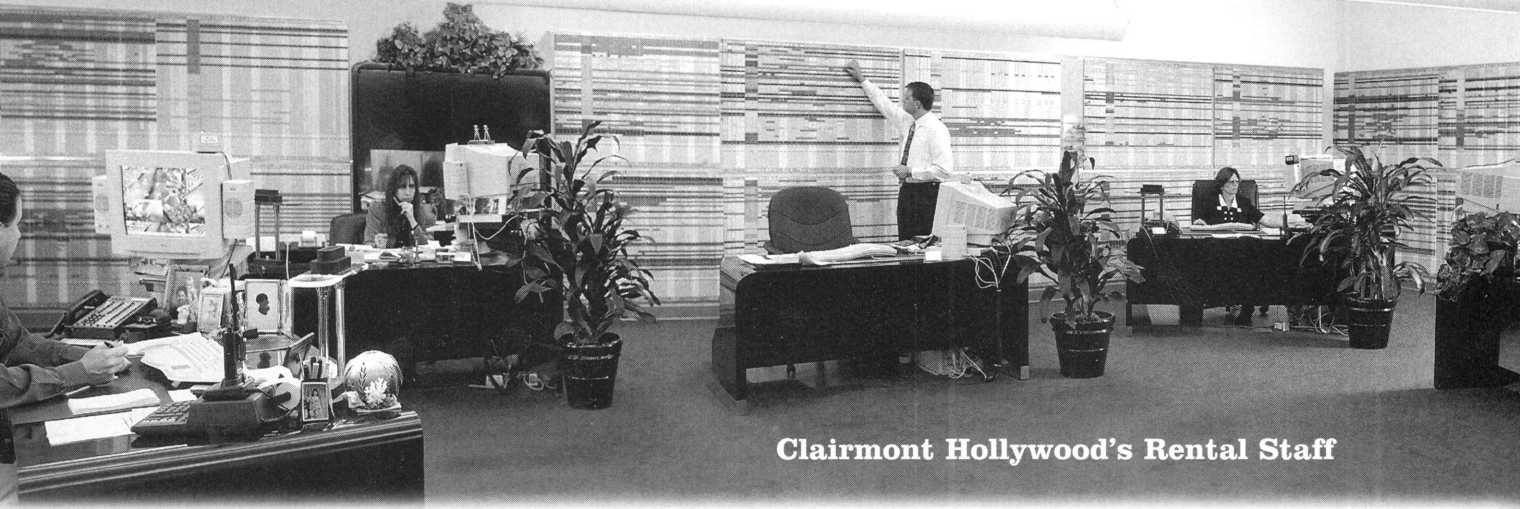
"We shot at 120 frames per second while the kid swung around the flagpole, and Ko Maruyama at Post Logic did the ramp from normal speed to slow-motion in post. It's much easier to do the ramp effect, because you can decide exactly where you want it to happen. You use a lot more film shooting the whole spot at 120 frames instead of shooting at 24 frames and ramping in-shot, but you have much more precise control if you do the ramp digitally."

Maruyama is a digital artist who specializes in using the Quantel Henry. His work on "Concrete Feet" ranged from editing to doing digital compositing, all done within the Henry's domain. Several times during the spot, multiple windows appear on screen simultaneously, each displaying a different image of the models in action. Maruyama's primary responsibility was to maintain the visual balance between the windows, the graphic boxes surrounding them and the background imagery. "What we had to do was make the graphic timing work with the picture, find the pictures we wanted, and decide on how we wanted them cropped," explains Maruyama. "The small lines framing the windows are all tracked with the movement in the pictures and both the windows, and the frames move slightly to compliment the action within."

"Beau Leon and I do a lot of work



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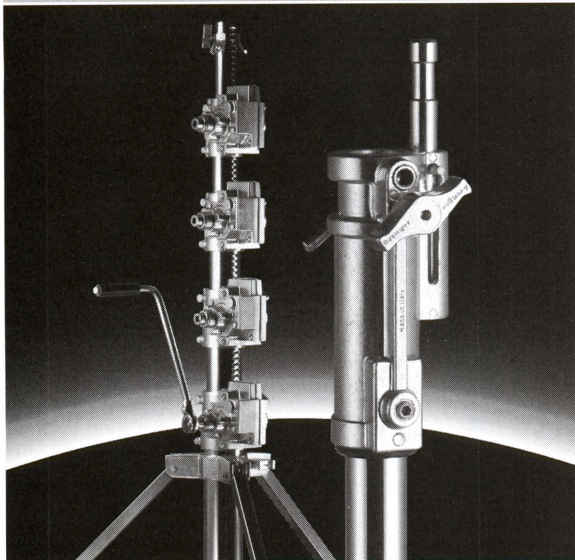
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together in music videos and commercials," he continues. "Scott Messick came in very well prepared, which made our work fairly easy. A lot of the graphic look was already done in-camera, but we helped to pull the visual style together as a whole. One of the reasons that I like to work with the Henry is that you can edit and do all of the graphics very quickly — if it doesn't look right the first time you can go back for a second or third try, or however long it takes, in a short period of time. We also used a feature called 'averaging' which basically interpolates a select number of frames and creates a mean, or an average of that information, to create new frames. For instance, if you have an object on frame left and in the next frame it's on frame right, you can average the two and the object will be in the middle. That is, of course, a simple explanation of it. In this case, 'averaging' gave a nice strobing to the animated Skechers logo."

Opines Messick, "It was great to put everything under one roof with Post Logic. We had some really interesting results that came out in post with the multi-window boxes and layers, which were both simply ways to get more images on screen and yet still be able to follow what was going on. Ko helped a lot in designing a simple way to get that idea across."

Today's advertising market often makes it difficult to distinguish the visual style of one commercial from that of another — particularly given that nowadays, shots are measured in length of frames rather than length of seconds. Nevertheless, Scott Messick, Mike Ozier, Beau Leon and Ko Maruyama have managed to devise a striking spot. "Commercials are a very competitive world," concludes Messick. "Success in this field is often based as much on luck as it is on skill. I want to have fun when I'm working, which is why I choose to work with the people that I do. Every time I do something, I want it to look different. I fall somewhere between the extreme and the mainstream, but for the most part I'm doing something that I think is cool."

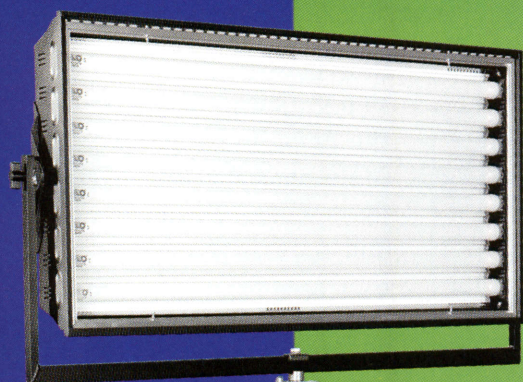


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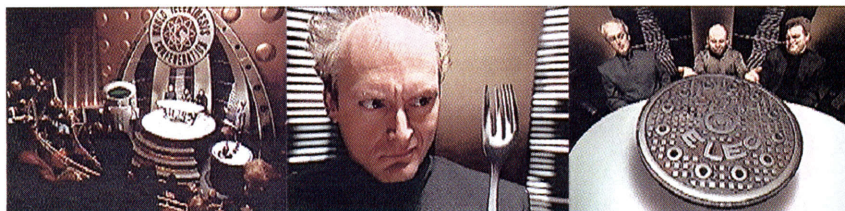
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## Mind Games

by Stephanie Argy

There is a growing group of filmmakers who are equally comfortable with both a light meter and a viewfinder. Yet even though director/cinematographer Charles Wittenmeier often shoots his own commercials and music videos, he has also collaborated with such outstanding cameramen as Conrad Hall, ASC, Jeff Cronenweth and Guillermo Navarro. "I've been really lucky to work with those guys," he says. "You can't not learn [when teamed up with cinematographers of their caliber]."

Wittenmeier is best known for amusing spots populated by weekend athletes, TV-watching dogs, and maniacally happy, working-class guys. "I mostly get humorous work," he says. "If you're going to be pigeonholed, it's the best place to be."

Though Wittenmeier's style originally relied heavily on extremely wide-angle lenses, brightly lit sets and over-the-top performances, in recent years, he has moved away from such extreme stylization. "That has become less effective because so many people are doing it, but style is really dependent on the project. I haven't stopped using wide lenses when they're appropriate, but nowadays my goal is to be more sophisticated."

Wittenmeier started his career in the employ of B-movie maven Roger Corman, first working as an assistant editor, and then branching out into other areas of postproduction — cutting sound, trailers and anything else needed by the studio. In the mid-Eighties, he joined the Discovery Program, which allowed new directors access to equipment so as to shoot short films. There, Wittenmeier learning his craft by trying out various on-set production positions. More importantly, he used his

access to the program's gear to shoot spec commercials.

He and two friends from Discovery Program — Scott Bibb and Baker Smith — soon established Bliss, their own commercial production partnership, which then joined forces with Harmony Pictures. After the team broke up, Wittenmeier moved onto the commercial division of Quentin Tarantino's A Band Apart production company.

Early in his directing career, Wittenmeier photographed most of his own spots because he retained greater creative control by framing, lighting and setting up the images himself. "I was adamant that I shoot everything myself



Frames from Budweiser's "Mind Control" spot demonstrate Wittenmeier's droll approach to the telekinetic concept. The beer company was unsure if the spec ad would play to American audiences, but it's proven to be a hit with viewers.

when I started because we didn't have color video taps," he explains. Even now, he still shoots about one-third of his commercials.

On a recent spot for the Partnership for a Drug Free America, he shot a series of moody, abstract little films in which an announcer reads a fairy-tale type narration over harsh images that stand in direct counterpoint to the soothing voice-over. "The contrast was intense," says Wittenmeier. "It was something different than I normally like to do. It was a real departure."

Though Wittenmeier has his own Arriflex equipment — including an Arri III, a 3C and a set of primes — he's a great fan of Panavision, which he used on the Drug Free America campaign. "I

like their system; I like the close-focus ability of their Primo lenses," he says. Though these particular spots were shot in some very low-light situations, he still found the Primos to be up to the task.

On jobs Wittenmeier shoots himself, he prefers slower-speed films, and generally avoids mixing stocks. On this campaign, however, he employed a combination of Eastman Kodak's EXR 5293 and 5248. Scenes were shot without any diffusion because of his desire for hardened realism.

He lit the job mostly with fluorescent fixtures, but used a Vari-Lite as his key source to facilitate rapid color changes within shots. The Vari-Lite's onboard computer can monitor and adjust the light's intensity, so the cinematographer can do a color shift — by way of the motorized fixture's internal filter wheel — while maintaining a constant exposure even while changing from white to a deep red, which would

ordinarily drop the exposure level by one or two stops. Wittenmeier notes, "Even if I wasn't doing effects-type lighting techniques, the Vari-Lite is great for doing fades and irises."

Though he still enjoys shooting his own projects, Wittenmeier now often works with other cinematographers, and finds that his own camera and lighting experience gives him an edge in building a good creative relationship with them. He offers, "There are so many talented people that I've wanted to work with. I like to give them their freedom, and being a cinematographer myself makes it easier for us to communicate."

Wittenmeier was extremely impressed by Conrad Hall, with whom he collaborated on a Bank of America spot.



"He takes things to the limits," says Wittenmeier. "He loves to use really big sources and very tiny sources — there's almost nothing in between. He also shoots wide-open, which gives a great look, especially with Panavision lenses."

Of Guillermo Navarro, who takes a very instinctual approach to his work,

**"I've worked with a lot of brave people, and I've learned to be more brave myself. You do your best work when you're at your bravest."**

— Charles Wittenmeier

Wittenmeier says, "Things are more of a feeling for him, and he works in a very painterly way."

Wittenmeier recently hired Jeff Cronenweth to shoot a Budweiser commercial, which became their first collaboration. "I had wanted to work with him, and I thought he'd be the right guy for the job," says Wittenmeier. "Jeff's got a keen eye. He definitely inherited the genes [from his father, famed cameraman Jordan Cronenweth, ASC]."

The spot, entitled "Mind Control," features a panel of psychics showing off their telekinetic abilities to an audience: the first bends a fork; the second causes a manhole cover to levitate; and the third dazzles the crowd by using mental prowess to uncup a bottle of Bud and pour the beer into a glass. However, as he receives his accolades, the glass slowly begins to drain — an audience member has bested all three psychics by drinking the frosty brew via his brainwaves.


"Mind Control" was a spec spot, with the advertising agency and production company gambling that the company would approve the spot after the fact. "They were just a little unsure about the story, since it was a bit more moody and European than what Budweiser usually does," says Wittenmeier. As a result, the budget was somewhat restricted, as


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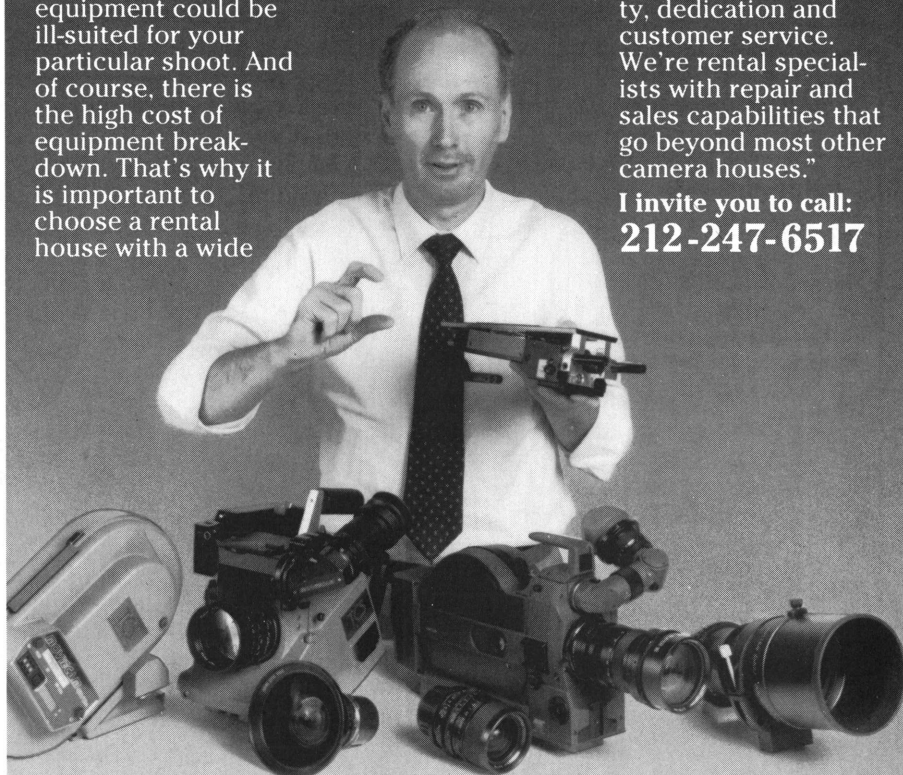
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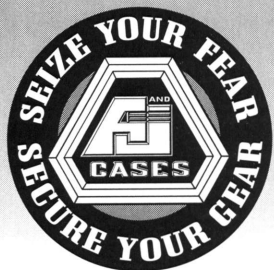
were the available resources. "We had a very limited set in a lot of ways, but we tried maximize our look with lighting and lenses to create a more graphic, bigger scale than we actually had."

Cronenweth and Wittenmeier kept their lighting subdued, so the edges of the auditorium would fade into darkness and help create the illusion that the audience comprised more people than the actual 40 extras on set. In addition, wide-angle lenses were used on establishing shots to make the room appear larger. Though the filmmakers possessed a full compliment of primes — from 14mm to 75mm — Wittenmeier says they remained mostly at the respective ends of the lens spectrum, going either wide or long.

Shot over two days at Culver Studios, the "telekinetic," effects-heavy spot features significant post work done by Ring of Fire, but Wittenmeier tried to achieve as many effects live on set as possible. "I come more from the old school of loving to do things in-camera," he says. "It's a compliment for people not to notice that work."

As a director/cinematographer, Wittenmeier has not only observed some very talented directors of photography at work, but has also been able to incorporate the techniques which he's learned into his own photography. "Everybody has a style, whether they know it or not — but being open is the best style. The idea is to be able to forge new ground and try new things, and the style that adapts the best is the best style." However, the most important lesson others have taught him about cinematography, and filmmaking in general, may be more related to attitude: "I've worked with a lot of brave people, and I've learned to be more brave myself. You do your best work when you're at your bravest." ■

*This issue marks the debut of Short Takes, a new monthly department that will be devoted to both commercial and music-video work.*



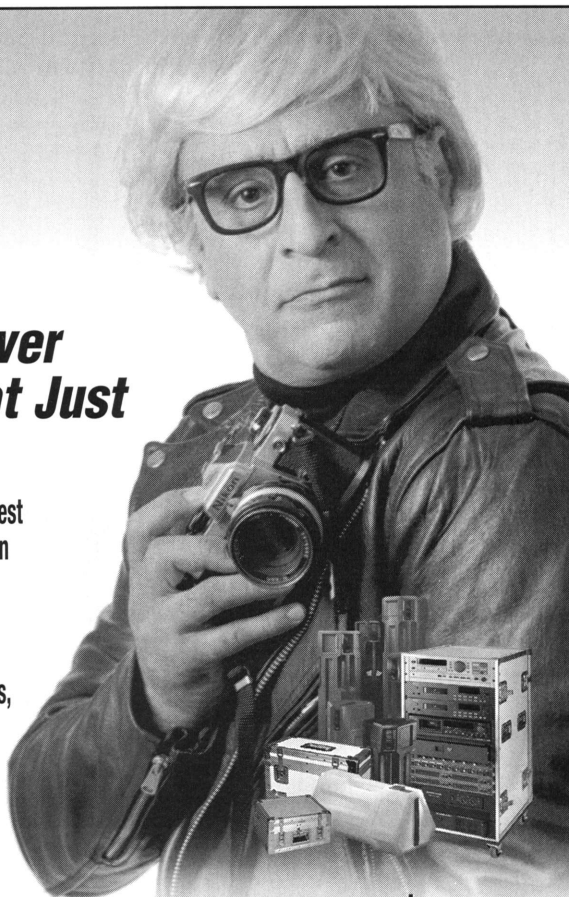
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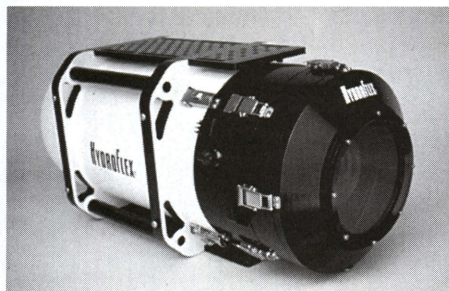


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# New Products

compiled by Michele Lowery and Andrew O. Thompson



## Wet Cam

HydroFlex's new Remote Aqua-Cam is designed to be used with cranes and jib arms for on-the-water or wet filming. The system incorporates an Arri-flex 35-III body, custom 400' magazines and remote focus and iris controls. This low profile camera system fits inside an 11" diameter tube and weighs in at only 62 lbs. fully loaded. Zeiss primes or Panavision spherical and anamorphic lenses can easily be fitted. Even lenses as long as the Panavision 180mm E-series lens are fully compatible with the system. An air-powered rain deflector mounted on the front port ensures that water drops are cleared from the lens. Handheld operating for split-level shots is easily accomplished by floating the housing on the surface. In the handheld mode, a HydroFlex 5.6" monitor allows the operator to set the frame while the camera assistant rolls camera and pulls focus from far as 100' away.

HydroFlex, (310) 301-8187, fax (310) 821-9886, website: [www.hydroflex.com](http://www.hydroflex.com).

## Latest Lenses

ZGC announces the availability of two new lenses: the OpTex/Canon 300mm T3.2 Mk-IIIb Lens, and the Canon 200mm, f1.8 High Speed Telephoto Lens for film and video. The Mk-IIIb OpTex/Canon 300mm super-telephoto lens is designed to accept all OpTex Universal mounts, which enables easy

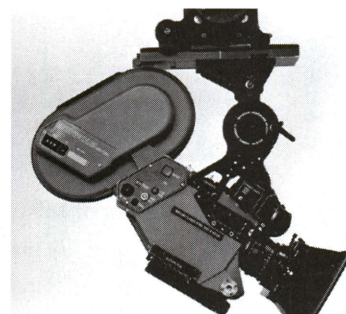
interchange between a wide range of 35mm, Super 16 and 16mm motion picture cameras and 1/2" and 2/3" video cameras. In keeping with OpTex's Super Cine cinematographic lenses, the Mk-IIIb has a low reflecting acrylic black finish. The iris scale is calibrated in T stops while the focus scale is engraved in both feet and meters. Both iris and focus feature large visible dual scales enabling them to be read from both sides of the lens. They also feature built-in 0.8 modulus gear rings compatible with studio follow focus rigs, fluid zoom drives and motorized control systems. Extenders are available in the 1.4x and 2x range to increase lens versatility.

The OpTex/Canon 200mm ultra fast f1.8 telephoto lens is available for either 16/35mm film or 2/3" video cameras. There are two versions of the OpTex/Canon 200mm telephoto lens. Version 1 has interchangeable mounts between Sony and Arri bayonet. Where the lens is mounted to the Arri bayonet, lens adapters are available to convert it to Arri PL, BNCR or Aaton mounts. Version 2 has interchangeable mounts between Arri PL, Panavision and BNCR. Lenses with Sony or Arri Bayonet mounts have a built-in filter slot that takes 34mm filters in a special holder. Lenses with Arri PL, Panavision or BNCR mounts will accept 40.5mm filters that screw in at the rear of the lens. To complement the performance of the original Canon optics, 1.4x and 2x ranges extenders are available; this extends the focal length to 280mm and 400mm with apertures of f2.5 and f3.6, respectively. The lens is supplied with standard focus and iris gear control rings, with scales visible from either side of the camera. A detachable lens hood is also supplied. Suitable lens supports are available if required.

ZGC, (973) 335-4460, fax (973) 335-4560, e-mail: [les@zgc.com](mailto:les@zgc.com).

## New Underslung Bracket

Clairmont Camera offers the Irwin Underslung Bracket, which was built at the request of Mark Irwin ASC, CSC. The cameraman wanted an apparatus that would get extreme low angles or allow a tabletop "scrape" while also eliminating the need to carry an underslung head. For this purpose, Clairmont Camera designed a simple bracket which functions with the Moviecam Compact camera. Weighing three pounds, the Irwin Underslung Bracket is attached via



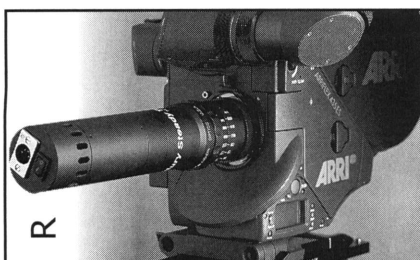
a quick release plate to a standard fluid head which has been inverted and hangs from a camera extension off a dolly or an arm. In this configuration, the camera becomes a pendulum. This setup enables one to achieve shots that are lower than a rocker plate, fit the rig into tight spaces, or fly over tabletops into the subject all while operating the camera normally. An oversized knuckle allows for adjustment of up to 60 degrees of tilt as well as vertical alignment. When the camera is attached to a Steadicam arm via this underslung bracket, low angles are possible while maintaining the arm's perpendicular position.

Clairmont Camera, (818) 761-4400, fax (818) 761-0861.

## The Tomakote Touch

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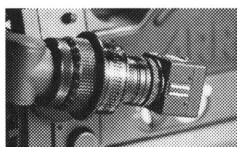
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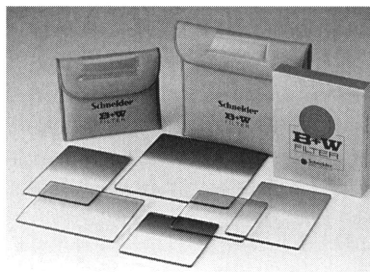
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restored version of Orson Welles's *Touch of Evil* (see George Turner's historical article "A Cop Gone Wrong" on page 88). Tomakote is a "magic solution" invented by late projectionist and film technician Tom Ogburn in 1975. This compound allows film to retain a cleaner, clearer appearance, as well as ensuring that both analog and digital soundtracks retain their stability against drop-outs and audible distortion after countless screenings. Once applied, Tomakote works to reduce or eliminate common problems associated with polyester film exhibition, such as static, shedding, lubrication and focus troubles. (Universal Studios previously made use of Tomakote on Steven Spielberg's *Schindler's List*.) The product is now available from Opodata, a company established by the inventor's daughter, Paula Ogburn Apodaca, to continue the manufacture and sale of Tomakote.

Opodata, (888) 203-1100.

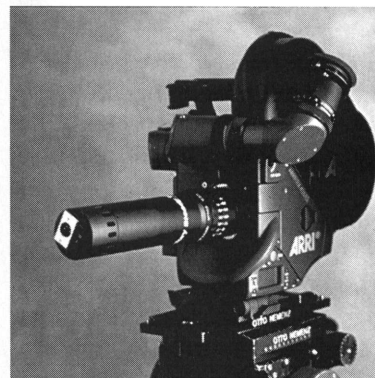


### Graduated Filters

Schneider Optics presents an expanded range of graduated color filters carefully designed in colors complimentary to sky, trees, grass, earth-tones and skin-tones. They are available with hard-edge and soft-edge blends in a variety of strengths. Current colors include Amber, Gold, Coral, Paradise Blue, and Sapphire Blue, as well as Neutral Density (ND) and ND Attenuators. Sizes include 4" x 4", 4" x 5.650" vertical and horizontal (Panavision size) and 6.6" x 6.6". Due to uniformity and consistency in manufacturing, Schneider filters can be mixed between A and B camera sets during production; replacement filters can be obtained without having to return the filter sets to the manufacturer for custom matching. All Schneider filters can be used

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Century introduces the Steady Tester, a new film registration analysis. The unit hard mounts to the camera with the Century Interchangeable Mount system just like a prime or zoom lens; this eliminates camera movement and vibration relative to the test target. Since the grid target is at the front of the camera, the frame is automatically filled with the test image. This tester is compact and portable, and easily fits most film cameras. Operational power requirements are 12 volt or 24V DC. The Steady Tester comes prefocused and boresighted to the camera lens mounting flange. A built-in light exposure adjustment relates film speed to frame rates.

Century Precision Optics, (818) 766-3715, fax (818) 505-9865, website: www.centuryoptics.com.

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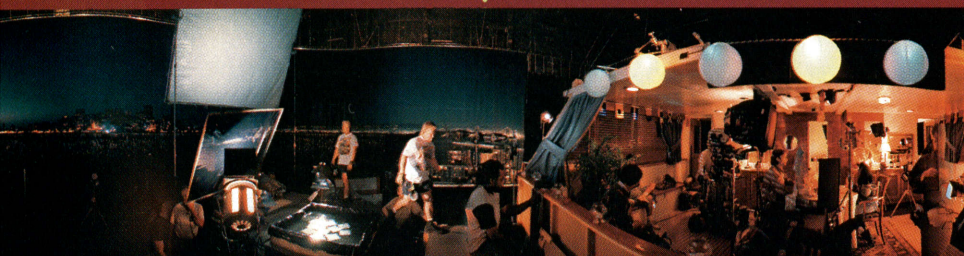
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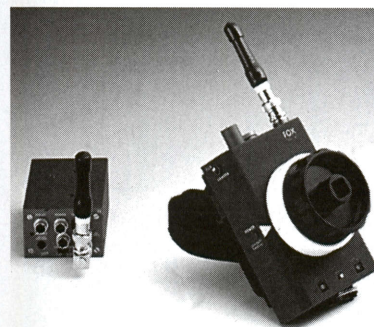


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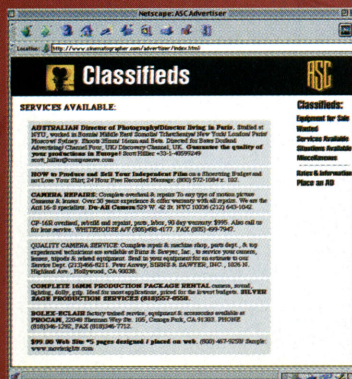
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46-22-90, e-mail: 24fps@online.no.



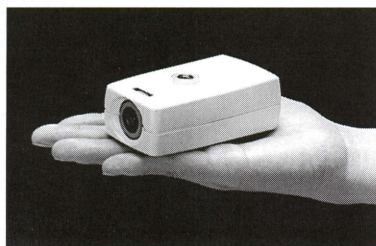
Band Pro presents The Fox, an advanced wireless transmitter/receiver from Alfred Chrosziel of Munich. Lightweight and compact, it provides digital 14-bit precision for remote focus control and camera on/off. This results in a fail-safe transmission whether a host requires the camera to be handheld, flown on a Steadicam or crane, or mounted on a car or aircraft. The unit works with a wide range of drive motors including the FMG-6. Featuring automatic lens calibration, the system is easy to set up and program. All data is held safely in memory, even when the batteries need to be changed or in the case of a power failure. The unit consumes very little power and incorporates electric power shut down to safeguard camera lenses. The system transmits on one or





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Band Pro Video, (818) 841-9655, fax (818) 841-7649, e-mail: band-provid@aol.com.



#### New Projector

ELMO introduces its new XGA LCD Projector (model EDP-5100) which offers greater color resolution and brightness in a compact and trim portable projector with 2,359,296 pixels (1024 x 768 x 3). The new light source, using a 120W UHP lamp, produces 650 ANSI lumens. The unit will fill a big screen with sharp and clear images under virtually any room condition or audience size. It also offers capability for XGA, SVGA, VGA and SXGA (compressed) and is fully compatible with NTSC, S-video, PAL and SECAM. In addition to the operational controls built into the projector itself, ELMO supplies a user-friendly mouse remote control. The LCD Panel uses an advanced 1.3" Polysilicon TFT Active Matrix and can be powered by AC 100-120V or 220-240V 50/60 Hz. The F2.5-3.0 50-70mm manual-focus zoom lens has a projection capability of 22 to 300 diagonal inch picture size and a throw distance of 3.6 to 39 feet. The unit features a built-in speaker with superior sound, seven input and output jacks for audio, video and RGB plus an RS-232C control terminal. The projector measures 13.4"W x 11.6"D x 5.4"H, has an integrated control panel and weighs only 14.9 pounds.

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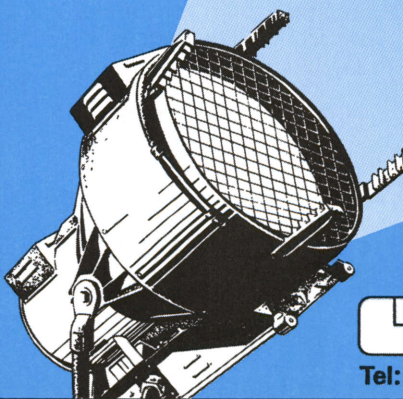
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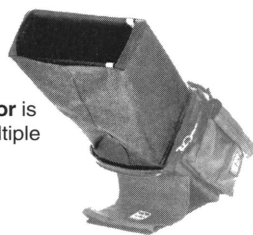
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denier cloth to a heavier 1,000-denier cloth backing, the GelTote's fold back facilitates its opening. Four web loops attached to the inside center of the bag provide hanging points that permit it to display the sixteen sleeves — eight to each side. Two Velcro trimmed flaps secure the gels into place. Each sleeve carries a markable and removable Velcro label. When it comes time to pack up, the GelTote rolls from each end towards the middle and buckles together. Two web strap handles help to carry your gel package to the next location.

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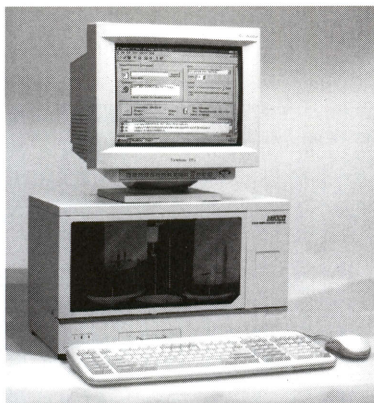
GelGard (888) 868-4499, fax (954) 698-9769.

## CD Duplication

Otari is releasing a new Compact Disc Duplicator, the CDP-50, which can continuously duplicate up to a maximum of 50 blank CD-R's from one master disc. The new tabletop unit is complete with pre-installed CD-R duplication software, write verification and error disc detection features. Before the duplication process begins, the master disc data is read and downloaded into the internal hard disk. The data is then copied from the hard disk onto the blank discs at a 4x copy rate. Supporting most CD formats, the CDP-50 utilizes the writing methods of Track-at-Once, multi-session and Disc-at-Once (quasi Disc-at-Once, no gaps between tracks). It will write at speeds of 1x, 2x and 4x and can read at a 12x maximum speed. Boasting a Pentium 166MHz CPU and 16MB of memory, the fast duplicator has a maximum disc duplication capacity of 50.

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Otari Corporation, (650) 295-2286, fax (650) 341-7200.

#### Digital Cameras

Sony introduces the DSR-300 1/2" CCD DSP camcorder, the DSR-200A switchable-aspect-ratio 1/3" CCD camcorder, and the DXC-D30WS switchable aspect ratio 2/3" CCD DSP camera head. The DSR-300DSP camcorder has a variety of functions in a small body



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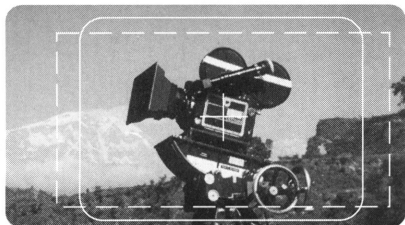


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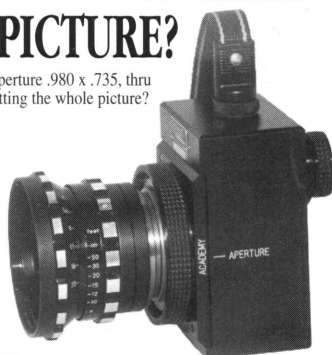
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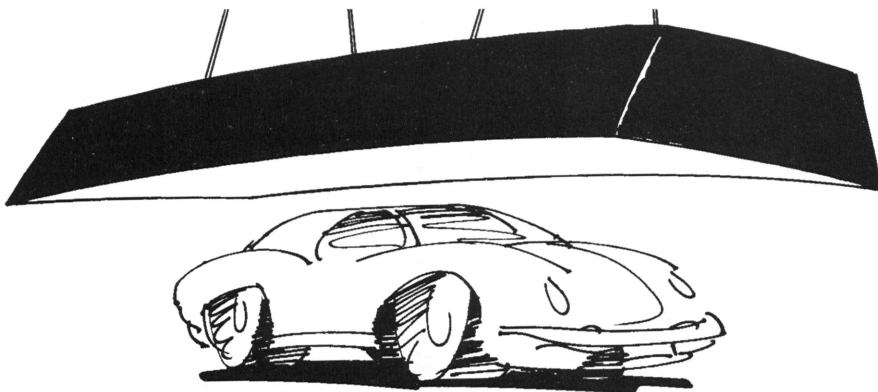
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designed for one-person operation. The digital camcorder offers picture quality by adopting a 15-bit dsp processing, three 1/2 inch Power HAD CCDs and up to three hours of high-quality DVCAM recording. In a manner similar to that of high-end Sony digital camcorders like the DSR-130, video is transferred digitally to the digital VTR section from the DSP camera without converting to analog, resulting in quality, artifact-free recording. The DSR-200A is an upgrade to the DSR-200 that now features both 4:3 and 16:9 capability, improved minimum illumination, on-screen display On/Off options, time/date data superimposed on the video out, and an i.LINK interface (1394-IEEE-based) for digital signal transmission. The DXC-D30WS is an aspect ratio switchable 16:9/4:3 camera targeted for all high-end business and industrial professional video production houses, as well as small to mid-sized broadcast and cable television stations. The DXC-D30WS is a digital camera head that flexibly docks to component recorders including component analog, 4:1:1 digital or 4:2:2 formats. The DXC-D30WS is currently available with aspect ratio viewfinder, RM-LG1 ClipLink control unit, a directional microphone, and the VCT-U14 tripod plate.

Sony, (800) 686-SONY, website: [www.sony.com/professional](http://www.sony.com/professional).

### Digital Video Snake Cables

Belden Wire and Cable announces its new Brilliance VideoFlex (R) series of bundled precision digital video snake cables for demanding RGB or multi-channel video applications. This family of multiconductor coaxial cables is designed for long-run RGB applications, where cable attenuation and timing play a significant role in preserving video image quality. Belden (R) VideoFlex cables have been designed to meet the needs of challenging television and computer graphics application such as serial digital video, computer CAD/CAM, high-end computer graphics and animation, TV pre- and postproduction, live TV broadcasts, TV field and mobile use, or any



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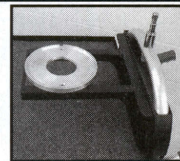
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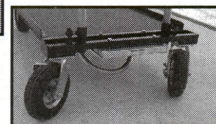
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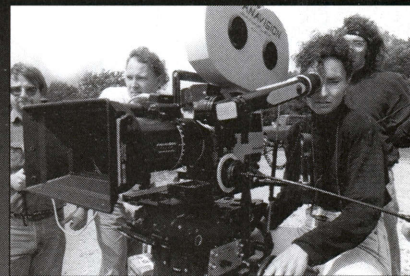


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## Post/Visual Effects Resource Book

The LA 411 Publishing Company recently released its 411 Digital directory, which was put together under the scrutiny of AC Postproduction Editor Debra Kaufman. This new tome, designed for film and video production professionals, includes information and contacts on 2,500 top-tier post facilities, visual effects houses, animation shops, editorial firms and stock footage companies found throughout North America. The directory also includes freelance editors and post/visual effects supervisors, as well as specialist services such as motion capture, blue/greenscreen, virtual sets, and digital models. Also included is a handy glossary of technical terminology.

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# Points East

## MIT Braves Digital Frontier

by Eric Rudolph

Thanks to researchers at the Massachusetts Institute of Technology's Media Lab, inaccessible and impractical locations will soon be digitally recreated on celluloid from still photographs, allowing filmmakers to realistically drop actors into interiors too daunting to be occupied by a production crew. (For information on other efforts within the digital imaging frontier, see Production Slate article on *Conceiving Ada*.)

"Integration of observations" is the term used at MIT to describe how various views of the same scene can be merged into a 3-D digital model of the actual scene. Imagine a back projection in which the background plate could be viewed from any angle or perspective imaginable, and into which the camera could enter and perform a move such as a 360-degree spin around a character.

The technology now used to create 3-D models of computer-aided design (CAD) environments (such as onscreen "walking tours" of synthetic home designs, where objects can be moved, lighting changed and any course through, or angle of, the environment viewed) will give filmmakers the option to keep the film crew home and send a still photographer to record a distant or cramped location.

Dr. V. Michael Bove Jr. (principal research scientist and head of the object-based imaging group at the Cambridge, Massachusetts-based MIT Media Lab) and his students have already fashioned a 3-D model of a house from still photographs and fused actors into the scenes in NTSC video resolution. "About three years ago we sent a still photographer to a house with the only instructions being to cover the interior thoroughly and make sure

each photo overlapped the other to some degree," details Bove. "Using computers programmed to understand perspective vanishing points, we built a 3-D model of the rooms in that house and integrated actors shot on a three-sided bluescreen cyclorama with five video cameras. In post, we could synthesize any viewpoint in the room and drop the actors into that view."

Though the process generated convincing results, shadows cast by the actors were somewhat problematic. "If we'd had time to matte in the appropriate shadows, it would have looked much better, but at that point we were just trying to demonstrate proof of the principal."

Overall, the potential benefits of location imaging to creative filmmaking are quite significant. "There are a lot of environments and objects in the world that CAD people are now laboriously 'authoring' which they will soon be able to simply record with cameras," Bove notes. "The problem with synthetic sites is that they are awfully hard to author. As an example, the house interior in the film *Toy Story* took a great deal of time and effort to create. If they'd been able to simply walk around a house with still cameras and use the stills to model the house in 3-D, they could have spent more time, effort and money on the characters."

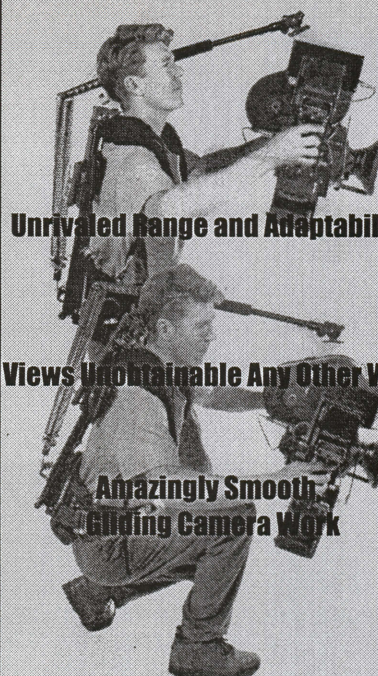
He also suggests that live-action films will profit from the process because the 3-D modeling could free up time and money that would otherwise be spent on traveling to and working in far-away and difficult locations.

Another important implication for filmmakers that MIT and others are working to solve is a procedure which would allow actors and objects (such as

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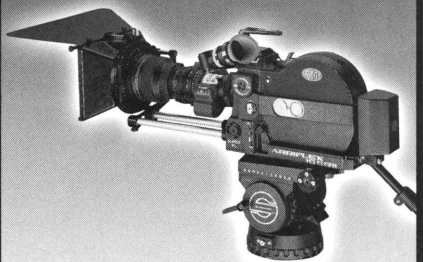
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cars) that have not been shot against a greenscreen to be much more easily removed from a scene for matting into another. "We recently developed a tool that allows you to take one frame and do a quick scribble over a person or object," Bove reveals. "As long as you make certain that the scribble points touch on all the different colors, the computer will make a mathematical model of the colors, textures and motion on the

**"People will realize  
that there are little  
things that are easier  
and cheaper to do  
with 3-D modeling."**

— MIT research scientist  
**Dr. V. Michael Bove**

indicated points and fill in the rest of the silhouette outline. The item can then be extracted from the scene and matted into another just as if it had been shot on greenscreen."

To transform still photographic images into a virtual interior that could be realistically combined with live-action footage, the stills would first have to be digitized, and a 3-D model created from the snapshots. That virtual model of the location would become a blueprint for planning shots into which live-action would be inserted. The actors would then be filmed against a greenscreen — possibly with foreground elements — and that film would be digitized. The backgrounds and action elements would later be integrated using a standard computer graphics program. Upon completion of post, the scene would be recorded to 35mm motion picture film like any other CGI element.

Robotically controlled cameras would be the most efficient way of filming live-action that includes moving camera shots. Bove explains, "You would either pre-render the background along a particular camera path and use a robotic camera to shoot the talent the same way, or shoot the talent first with a camera instrumented to record the

position and then render the background along that recorded path."

Once the background and actors are all in a computer graphics editing package, the work entails the same pluses and minuses encountered by today's filmmakers working with CGI. "The computer graphics guys are then doing most of your post, and the tools they use are not the same ones that cinematographers usually like to think about. The tools let you do the same things but the language is different, as is the means of interaction."

Smoothing out these differences is a matter of a "better interface, and of having better computational intelligence in the software. Ideally, you could give the program a relatively simple instruction and it would sort of know what you mean. I don't regard that as requiring new technology so much as just having programmers listen more closely to what filmmakers really want to do and how they want to do it."

The tools to handle 3-D models of real scenes is already in place in standard high-quality computer graphics packages. "The technology that needs more development is in the capture and integration ends," Bove says. "More work needs to be done on allowing one to meld the still images and segment things out fairly quickly at the 3,000 x 4,000 pixel resolution that will look convincing on a theatrical level."

Bove would not speculate, however, as to when this 3-D modeling approach would achieve its breakthrough at multiplexes nationwide. "Little bits are going to sneak in all over the place, and then someone is going to wake up one morning and say, 'Oh, we could do the whole scene this way!' People will realize that there are little things that are easier and cheaper to do with 3-D modeling. Or maybe something was done incorrectly in the shoot, and so the only solution is to let the graphics people work on it for awhile."

"Really, it's just an evolution of matting, but the difference is it that it's a 3-D evolution of matting." ■



# Books in Review

by George Turner

## Living Pictures: The Origins of the Movies

by Deac Rossell

State University of N. Y. Press,  
200 pps., paper, \$19.95

The multiple authorship of moving pictures — from the inventions which preceded movies as we know them to the development of practical filmstocks, cameras and projectors — is set forth well in this concise, easy-to-read history. All of the familiar names are included: Muybridge, Sklandowski, Eastman, Edison, Dickson, Marey, Friese-Greene, Armat, Lumiere, Paul, Acres, Latham. But less publicized contributors from various parts of the world also come to the fore, such as Akimov, Reich, Proszynski, Demy and Wray, to name a few.

Rossell, perhaps uniquely, does not deal with this mass of information in the usual chronological, evolutionary style. Rather, he reveals that a widespread ferment of ideas and invention led to the birth of the movies. Rightly enough, the emphasis is on the last decade of the old century and the first few years of the present one, and a wealth of information is unearthed along the way. Overall, the author has done a good, scholarly job of fact-finding.

## Playing to the Camera

by Bert Cardullo, Harry Geduld,  
Ronald Gottesman, Leigh Woods  
Yale University Press, 384 pps.,  
hardback, \$30

There's plenty of good reading in this collection, wherein 42 noted movie actors, past and present, domestic and foreign, discuss their craft. Their utterances are preserved in interviews, articles, excerpts from autobiographies,

letters and other sources. There are four main sections: "The Silent Performance," "Finding a Voice," "European Acting" (divvied up into British, Soviet, and continental groupings) and "Hollywood Acting" (which consists of three parts devoted, respectively, to the big studio days, the business of acting, and the "method" and other matters of style).

From the first entry (Charles Graham about film acting in 1912) to the last (actress/teacher Lindsay Crouse's views on acting today), a dominant theme is the difference between performing on stage and screen. Also featured are one or two photos of each of the players. All are well-chosen, except two that represent George Arliss but are really of Donald Cook (they were as alike as John Wayne and Woody Allen), and another pair in which Edward Fielding is misidentified as Michael Chekhov. Biographical sketches of the contributors are a welcome inclusion.

The all-star cast includes — to name a few — Charles Chaplin, Bette Davis, James Stewart, Greta Garbo, Katharine Hepburn, Sidney Poitier, Meryl Streep, Jack Lemmon, Marlon Brando, Mary Astor, Robert De Niro, Liv Ullmann, Joan Crawford and Jack Nicholson.

These and the other talented individuals speak seriously about acting, and several subjects spice things up with humorous reminiscences. Especially enjoyable in this respect are Edward Arnold describing his experiences with Josef von Sternberg while making *Crime and Punishment*, and Louise Closser Hale's detailed account of her first day on a soundstage after years of work in theatre. For impromptu eloquence and perspective, it's hard to top Lindsay Crouse's closing comment from an interview: "If this whole tower that's called



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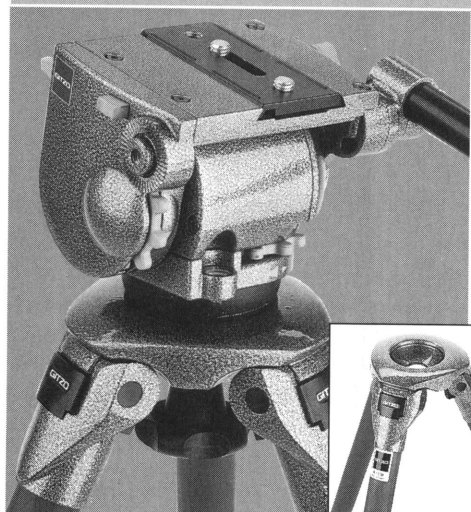
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Hollywood falls over, things will grow from the debris. Film, like the other arts, will never disappear entirely. People were painting in caves a long time ago. I don't worry about whether or not it will continue."

### The BFI Companion to Crime

*Edited by Phil Hardy*  
*University of California Press,*  
*352 pps., paper, \$29.95*

Whee! Here's an oversize, slick paper encyclopedia of crime movies and their origins with some 500 photos from at least that many shows. No Freudian probing intrudes on the fun as the editor looks into the films, the people who made them, the fictional or historic sources they're based upon, and the trends which they represent. No auteur theory abounds, but proper appreciation is accorded to directors, writers, cinematographers, actors and others in the production chain. Although American and British films are predominant in films of this genre, a considerable number of pictures from other countries — especially France and Japan — are well-represented.

Famed fictional detectives such as Sherlock Holmes, Sam Spade, and Hercule Poirot figure prominently. So do real-life villains whose infamous escapades made it to the silver screen: Jack the Ripper, Sweeney Todd, Al Capone, Clyde Barrow and Bonnie Parker. There are numerous references to the fictitious bad guys that ramble around in our mnemonic corridors, as well as to those still depicted in the modern movie world.

The photos culled from the British Film Institute's files are as lively as the text. Many are rarities — such as, for example, a circa 1928 shot from *Sweeney Todd*, and 1930 period stills from *At the Villa Rose*, *The Mystery of the Yellow Room*, and *Time Without Pity*. There's even a shot of Edgar Wallace directing *Red Aces* in 1929. Most old and recent favorites are present as well, but even these are represented by relatively unfamiliar stills. ■



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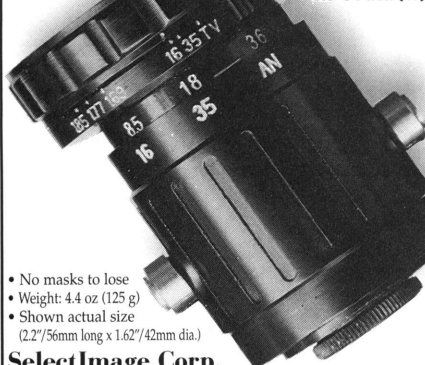
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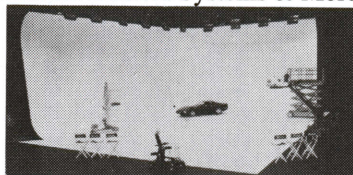
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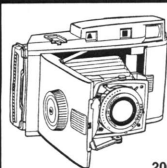
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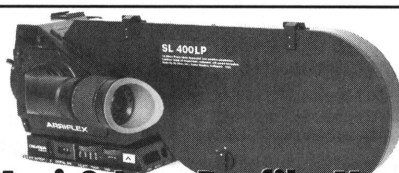
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# In Memoriam

**A.C. (Al) Francis, ASC**, a 62-year veteran of the motion picture industry, died on June 16, 1998. He was born in Lincoln, Nebraska, on August 9, 1918. When he became an ASC member in 1972, Francis summarized his extensive career as follows:

"In 1936, I started working as a film loader in the Warner Bros. Camera Department. Approximately four years later, I became a first assistant, working for such cinematographers as Tony Gaudio, Sol Polito, Hal Mohr, James Wong Howe, Ernie Haller, Art Edison, Ted McCord, and others. In 1942, I joined the Army Air Force as a cameraman, making various kinds of 35mm pictures. Upon discharge in 1946, I returned as an assistant cameraman for Universal Pictures. In 1950, I was made a second cameraman [operating cameraman].

Some of the cinematographers I operated for were Harry Stradling Sr., Bill Daniels, Russ Metty, Ray Rennahan, Cliff Stine, Curly Lindon, Charlie Lang and George Robinson.

"In 1967, the creator and producer of *Star Trek*, Gene Roddenberry, advanced me to the position of director of photography, and in 1969 I was nominated for an Emmy for a segment of *Mission Impossible*."

For four years Francis remained at Paramount, where he photographed several series, including *Star Trek* (1967-68), *Love American Style* (1969 and 1972), *Immortal* (1970), *Longstreet* (1971) and *Paper Moon* (1974). He also shot the features *Immortal*, *Escape* and *Heist*. From 1973 onwards, he freelanced for various television producers, working for Lorimar, Quinn Martin, Warner Bros.,

Columbia, Disney, Metromedia and others. Although he continued to work in series television on such programs as *The Streets of San Francisco* and *Quest*, he increasingly specialized in Movies of the Week and pilot films. His many pilots include *Quark*, *Tabitha*, *Flatbush*, *Getting There*, and *Super Cop*. Some of the more popular of his impressive array of MOW entries include *Banjo Hackett* (1975), *A Killing Affair* (1976), *Crisis in Sun Valley* (1977), *Donovan's Kid* (1978), *Incredible Journey*, *Second Sight*, *Island of Sister Theresa* and *The Memory of Eva Ryker* (all 1979), and *The Dobermans* (1980).

Francis is survived by his wife, Evelyn; his son, Ronald, and daughter, Beverly; a son-in-law, Ronald Reitz; and four grandchildren. A memorial service was held on June 27 at the Camarillo Christian Church in Camarillo, CA. ■

## American Cinematographer IN EUROPE

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# From the Clubhouse

## Couffer Captures Cats

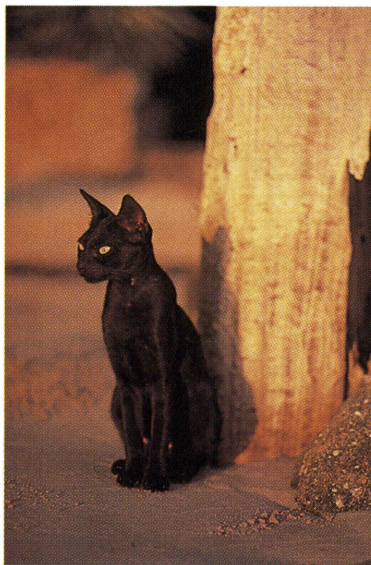
ASC member Jack Couffer keeps himself busy during the downtime between films by writing. According to the cameraman, writing fills the "time between phone calls. If I didn't have something to do, like write a book, I'd go crazy." But what does he prefer, cinematography or writing? "Basically there is nothing I like doing more than shooting," says Couffer. "I can't say that I enjoy writing even half as much as I enjoy shooting. But writing allows me to keep an active professional life when I'm not engaged in cinematography, directing, or producing."

Couffer has maintained an active professional life both on and off set. Behind the camera he has served in the capacities of director, producer, writer and cinematographer (both first- and second-unit). His extensive list of shooting credits include *Never Cry Wolf*, *Islands of the Sea*, *Out of Africa*, *Seven Cities of Antarctica*, *The Milagro Beanfield War*, *The Ghost and the Darkness*, and the upcoming *Mighty Joe Young*. Couffer has also published numerous books. He has written such youth-oriented books as *Galapagos Summer* and *African Summer* with his son Mike. His novel *The Concrete Wilderness* was adapted into the feature film *Medium Cool* (directed by Haskell Wexler, ASC) and two of his other books — the novel *Swim, Rat, Swim* and the nonfiction tome *Bat Bomb: World War II's Other Secret Weapon* — have recently been optioned for development.

Throughout the course of his filmmaking career Couffer has developed an aptitude for photographing animals. "I have a specialty, a niche, that I got into at the very beginning of my career, which is dealing mostly with films about animals or having animals involved [in the shooting process]." He gained much of that

experience working in Africa, where he happened to meet his life companion, Sieuwke. "I went over there first in 1972 to direct a film called *Living Free* and I'll tell you I fell in love with a lady and a country all at the same time. I really became hooked. Aspects of the countryside, the traditional culture, the wilderness of the place and, of course, the animals really appealed to me."

His passion for all that the African continent has to offer is a theme that's carried over into his latest book, *The Cats Of Lamu* (Lyons Press), his 11th published work. In it, Couffer recounts his study of the feral cats on Lamu, an island off the



coast of Kenya where the cameraman maintains a part-time residence. He had been a casual observer of these wild cats for 20 years before deciding to write about them. Two years ago he began a comprehensive study, the result of which is an engaging look into the daily lives of cats whom Couffer believes to be descendants of felines belonging to Egyptian pharaohs.

Unlike scientific studies in which clinical language can create a sense of



remoteness from the subject, Couffer's book draws the reader right into the cats' lives. Of the various cats Couffer observed on Mangrove Beach, readers become acquainted with animals such as Lady Gray, Bwana Mkubwa (Big Man), Kooky and Safi, all of whom display unique personalities and idiosyncrasies. The cinematographer's written remarks endow the reader with empathy for the cats' daily struggles for food, territory and group dominance, as well as their constant battle against extinction due to disease, drowning at the hands of humans, and forced sterilization.

Vivid photos taken by Couffer and his son Mike capture the beauty of the island and its inhabitants, both human and feline. Couffer's cinematographic eye informs his choice of photographs — the striking feline poses, the play of light across the silhouette of a cat on the beach, or the burst of color surrounding a particular animal in his resting place.

When combined with the text, these stills give one a true understanding of Couffer's affinity for cats. He opines, "[*Cats of Lamu*] allowed me to express my interest in these animals I see so frequently when I am at home. I thought it would be a story that would be both important and fun to tell."

— Michele Lowery

**Above:** Frisky ginger cats gather on Mangrove Beach. **Left:** A jet-black tomcat known as Midnight strikes a regal pose befitting his high rank in the feline hierarchy.

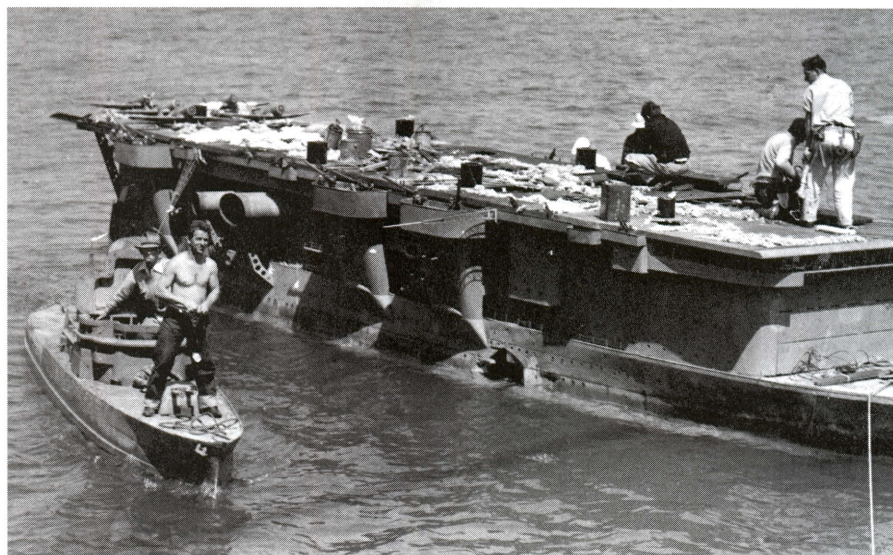


# WRAP SHOT



In 1987, pioneer French producer Georges Méliès staged his own version of a sea battle in the Greco-Turkish War, using toy-size ships in a tiny ocean. A few months later he used miniatures to stage the destruction of the *U.S.S. Maine* in Havana Harbor and the naval siege of Manila. At about the same time in New York, artists Albert E. Smith and J. Stuart Blackton, the founders of Vitagraph Pictures, produced the *Battle of Santiago Bay* in miniature. The "bay" was actually one of Blackton's mounted canvasses turned face down and filled with water, while the ships were photos mounted on wooden bases and pulled with strings. Explosions were simulated by setting off black powder with a wire taper, and the "smoke of battle" was rendered with cigar and cigarette smoke blown into the scene by Mrs. Blackton and an office boy.

These primitive efforts seemed real enough to the film patrons of that time, but it's a giant step removed from the sinking of the *Titanic* in last year's mind-boggling, blockbuster production. The intervening century has seen many strikingly realistic depictions of catastro-



phes at sea, crafted with increasingly sophisticated techniques. Long before the dawn of digital effects, large miniatures — if you'll pardon the contradiction in terms — were employed for sea action. The ships had to be fairly big because water, flames and explosions do not lend themselves to miniaturization.

The Japanese aircraft carrier shown above was built to order in 1942 for a medium-budget Universal picture,

*We've Never Been Licked*, which featured the wizardry of famed visual effects cinematographer John P. Fulton, ASC. A wealth of detail includes several "Zeros" (fighter planes), anti-aircraft guns and nine-inch figures of crew members. Fred Knoth's pyrotechnics crew is prepping the ship for destruction by torpedoes, bombs and a suicide plane. Fulton added more reality to the effect by staging live-action elements and printing them onto the deck of the ship. The two smaller ships are actually speedboats from which concealed cameramen could capture varied angles of the action.

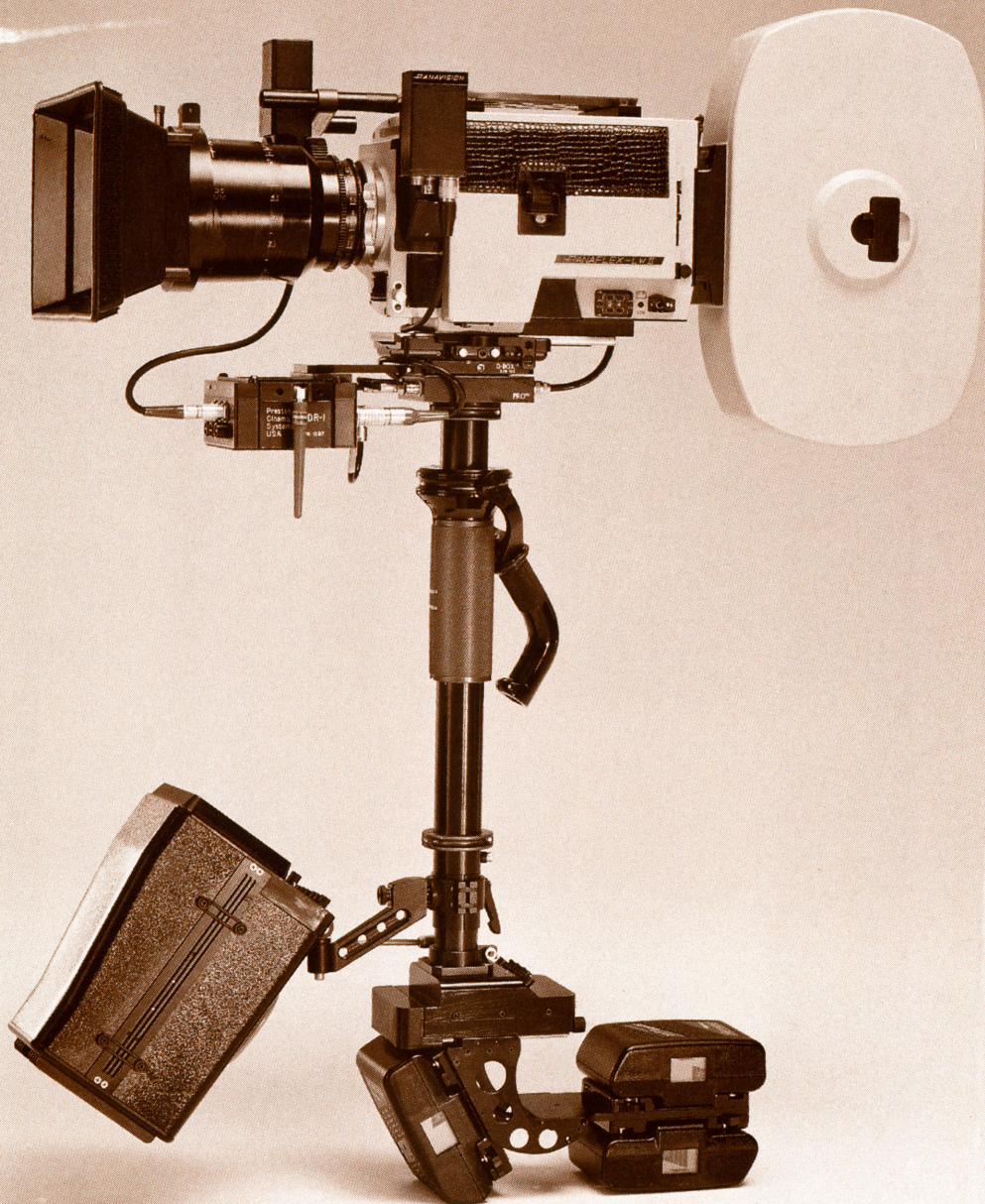
In the photo of the ship raging in flames, Fulton is the man in the outboard motorboat, heading in for some close views. Camera cranking speeds for such

action ranged from six to as much as 15 times normal frame rates. Most action of this kind was filmed in shallow water in studio tanks, with the ships moving on rails, but Fulton preferred natural bodies of water and motorized ships. These sequences were executed in the bay at Santa Barbara. The cameraman also utilized Lake Tahoe, the Salton Sea and other locations for further marine scenes.

—George Turner



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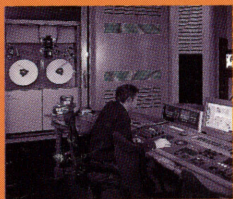




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